**Templeogue/Rathfarnham to City Centre Core Bus Corridor Scheme**
April 2023

# Natura Impact Statement

BUS CONNECTS
SUSTAINABLE TRANSPORT FOR A BETTER CITY.

# Templeogue/Rathfarnham to City Centre Core Bus Corridor Scheme

April 2023

# Natura Impact Statement

## Main Report

BUS CONNECTS

SUSTAINABLE TRANSPORT FOR A BETTER CITY.

## Table of Contents

1 Introduction ..... 1
2 Legislative Context ..... 2
3 Description of the Proposed Scheme ..... 3
3.1 Overview ..... 3
3.2 Structural Works ..... 4
3.3 Surface Water Drainage Infrastructure ..... 4
3.4 Construction Compounds ..... 6
3.5 Estimated Construction Phase Duration ..... 10
3.6 Operational Phase ..... 10
4 Methodology ..... 10
4.1 Scientific and Technical Competence Relied Upon ..... 10
4.2 Guidance and Approach ..... 11
4.3 Assessment Methodology ..... 12
4.4 Desk Study ..... 14
4.5 Consultation ..... 15
4.6 Baseline Surveys ..... 16
5 Overview of the Receiving Environment ..... 19
5.1 European Sites ..... 19
5.2 Habitats ..... 28
5.3 Flora and Fauna Species ..... 28
5.4 Flora ..... 28
5.5 Otter ..... 30
5.6 Marine mammals ..... 31
5.7 Kingfisher ..... 31
5.8 Other Birds ..... 32
5.9 Fish ..... 34
5.10 Invertebrates ..... 35
5.11 Hydrology ..... 35
5.12 Hydrogeology ..... 37
5.13 Soils & Geology ..... 37
6 Potential Impacts, Zone of Influence and Identifying European Sites at Risk of Effects ..... 37
6.1 Habitat loss and fragmentation ..... 37
6.2 Habitat degradation / effects on QI / SCI species as a result of hydrological impacts ..... 38
6.3 Habitat degradation as a result of hydrogeological Impacts ..... 40

6.4 Habitat degradation as a result of introducing / spreading non-native invasive species .....40
6.5 Habitat degradation as a result of air quality impacts .....41
6.6 Disturbance and displacement impacts .....41
6.7 Summary .....44
7 Assessment of Potential Effects on European Sites .....46
7.1 North Dublin Bay [000206] and South Dublin Bay SAC [000210] .....46
7.2 Rockabill to Dalkey Island SAC [003000] and Lambay Island SAC [000204] .....67
7.3 Wicklow Mountains SAC [002122] .....74
7.4 South Dublin Bay and River Tolka Estuary SPA [004024] .....81
7.5 North Bull Island SPA [004006] .....92
7.6 Howth Head Coast SPA [004113], Dalkey Islands SPA [004172] and Rockabill SPA [004014] ...101
7.7 Baldoyle Bay SPA [004016] .....109
7.8 Malahide Estuary SPA [004025] .....115
7.9 Rogerstown Estuary SPA [004015] .....122
7.10 Skerries Islands SPA [004122] .....129
7.11 Ireland's Eye SPA [004117] and Lambay Island SPA [004069] .....134
7.12 The Murrough SPA [004186] .....141
8 Summary of Mitigation Measures and Residual Impacts .....147
8.1 Summary of Mitigation Measures .....147
8.2 Summary of Residual Impacts .....152
9 In-Combination Assessment .....152
9.1 Analysis of Potential In-Combination Effects .....152
9.2 Plan Level Environmental Protection Policies and Objectives .....270
9.3 Conclusion of In Combination Assessment .....272
10 NIS Conclusion .....273
11 References .....274

List of Images:

Image 1 Location and Extent of Construction Compound TR1
Image 2 Location and Extent of Construction Compound TR2
Image 3 Location and Extent of Construction Compound TR3
Image 4 Location and Extent of Construction Compound TR4
Image 5 Location and Extent of Construction Compound TR5
Image 6 Location and Extent of Construction Compound TR6

List of Figures:

Figure 1 – Proposed Scheme Location
Figure 2 – Wintering Bird Survey Sites
Figure 3 – Hydrological Connectivity to the Proposed Scheme
Figure 4 – European Sites in the Vicinity of the Proposed Scheme
Figure 5 – Wintering Bird Survey Results

List of Appendices

Appendix I – General Arrangement Drawings
Appendix II – Proposed Surface Water Drainage Works Drawings
Appendix III – Construction Environmental Management Plan (CEMP)
Appendix IV – Desk Study
Appendix V – Water Framework Directive (WFD) Assessment
Appendix VI –Aquatic baseline report for BusConnects project, Dublin City (Triturus Environmental Ltd, 2020)

# 1 Introduction

1 This Natura Impact Statement (NIS) has been prepared by Scott Cawley Ltd. on behalf of the National Transport Authority in respect of the Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme (hereinafter "the Proposed Scheme"). The Proposed Scheme aims to provide enhanced walking, cycling and bus infrastructure on this key access corridor in the Dublin region, which will enable and deliver efficient, safe, and integrated sustainable transport movement along the corridor.

2 This NIS has been prepared in accordance with the provisions of Part XAB of the Planning and Development Act 2000, as amended ("the 2000 Act") and in accordance with the requirements of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive).

3 It considers the implications of the Proposed Scheme, on its own and in combination with other plans or projects, for European sites[1] in view of the conservation objectives of those sites. It includes a scientific examination of evidence and data to identify and assess the implications of the Proposed Scheme for any European sites in view of the conservation objectives of those sites. The NIS considers whether the Proposed Scheme, by itself and in combination with other plans or projects, would adversely affect the integrity of any European sites. In reaching a conclusion in this regard consideration is given to any mitigation measures necessary to avoid or reduce any potential negative impacts.

4 This report has been prepared following an assessment, of the potential in view of best scientific knowledge for of the potential for the Proposed Scheme to have significant effects, either individually or in combination with other plans or projects on European sites, set out in an Appropriate Assessment (AA) screening report.

5 A Screening for Appropriate Assessment was undertaken and a determination was prepared by the NTA (both published on the NTA website). The AA Screening concluded that "there is the possibility for significant effects on the following European sites; North Dublin Bay SAC; South Dublin Bay SAC; Rockabill to Dalkey Island SAC; Lambay Island SAC; Wicklow Mountains SAC, Howth Head Coast SPA; Dalkey Islands SPA; Rockabill SPA; North Bull Island SPA; South Dublin Bay and River Tolka Estuary SPA; Ireland's Eye SPA; Malahide Estuary SPA; Baldoyle Bay SPA; Rogerstown Estuary SPA; Skerries Islands SPA; Lambay Island SPA; and The Murrough SPA, in the absence of mitigation, either arising from the project alone or in combination with other plans and projects, as a result of habitat loss / fragmentation, hydrological impacts, non-native invasive species, and disturbance and displacement impacts for named European sites".

6 Since the publication of the AA Screening, there have been minor design updates to the Proposed Scheme (Section 3). However, the conclusions of the AA Screening and determination remain unchanged. This NIS assesses the final Proposed Scheme design.

7 Following an examination, analysis and evaluation of all relevant information and in view of best scientific knowledge, and applying the precautionary principle, that Appropriate Assessment screening report concluded that there is the possibility for significant effects on European sites to arise, either from the Proposed Scheme alone or in combination with other plans and projects.

[1] The Natura 2000 network of sites are defined under the Habitats Directive (Article 3) as a European ecological network of special areas of conservation, composed of sites hosting the natural habitat types listed in Annex I and species listed in Annex II, and special protection areas classified pursuant to the Birds Directive (2009/147/EC). The aim of the network is to aid the long-term survival of Europe's most valuable and threatened species and habitats. In Ireland, these sites are designated as *European sites* – defined under the Planning and Development Acts and / or Birds and Natural Habitats Regulations as (a) a candidate site of Community importance, (b) a site of Community importance, (c) a candidate special area of conservation, (d) a special area of conservation, (e) a candidate special protection area, or (f) a special protection area. They are commonly referred to in Ireland as Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

8 Accordingly, a Stage Two Appropriate Assessment of the Proposed Scheme is required in this instance as, in the professional opinion of Scott Cawley Ltd., it cannot be excluded, in view of best scientific knowledge and on the basis of objective information, that the Proposed Scheme, either individually or in combination with other plans or projects, will have a significant effect on some European site(s) in view of their conservation objectives.

9 Thus, the purpose of this NIS is to provide an examination, analysis and evaluation of the potential impacts of the Proposed Scheme on European sites and to present findings and conclusions with respect to the Proposed Scheme in light of the best scientific knowledge in the field. This NIS will inform and assist the competent authority, An Bord Pleanála, in carrying out its Appropriate Assessment as to whether or not the Proposed Scheme will adversely affect the integrity of any European sites, either alone or in combination with other plans and projects, taking into account their conservation objectives.

10 The Proposed Scheme is neither connected with nor necessary to the management of any European sites.

11 It is the considered view of the authors of this NIS (Scott Cawley Ltd.) that, following the implementation of the mitigation measures proposed in Section 7.1.4 (and 7.3.4 in respect of otter), the Proposed Scheme will not, individually or in combination with other plans or projects, have any adverse effect on the integrity of any European sites in view of their conservation objectives.

## 2 Legislative Context

12 Article 6(3) of the Habitats Directive states that:

> *'Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.'*

13 For the purposes of this application for approval, which is made pursuant to the provisions of section 51 of the Roads Act 1993, as amended, the obligations under Article 6(3) are transposed into Irish law by Part XAB of the Planning and Development Act 2000, as amended ("the 2000 Act"). Subsection 177U(4) of the 2000 Act provides for screening for Appropriate Assessment as follows:

> *'The competent authority shall determine that an appropriate assessment of [...] a proposed development [...] is required if it cannot be excluded, on the basis of objective information, that the [...] proposed development, individually or in combination with other plans or projects, will have a significant effect on a European site.'*

14 For the reasons set out in detail in the AA Screening Report included in the application documentation, a Stage Two Appropriate Assessment of the Proposed Scheme is required to be undertaken by the Board pursuant to Article 6(3) of the Habitats Directive and section 177V of the 2000 Act.

15 In the latter context, subsections 177T(1) and (2) provide that:

16 'A Natura impact statement means a statement, for the purposes of Article 6 of the Habitats Directive, of the implications *of a proposed development, on its own or in combination with other plans or projects, for one or more than one European site, in view of the conservation objectives of the site or sites'*

*… a Natura impact statement… shall include a report of a scientific examination of evidence and data, carried out by competent persons to identify and classify any implications for one or more than one European site in view of the conservation objectives of the site or sites*.

Consideration has been given in the preparation of this report, to the evolution in interpretation and application of provisions of EU Directives and Irish legislation arising from jurisprudence of the European and Irish courts, in respect of Article 6 of the Habitats Directive, in particular.

# 3 Description of the Proposed Scheme

17 The following sections provide information to facilitate the Appropriate Assessment of the Proposed Scheme to be undertaken by the competent authority.

18 A description of the Proposed Scheme and the receiving environment is provided to identify the potential ecological impacts. The environmental baseline conditions are discussed, as relevant to the assessment of ecological impacts where they may highlight potential pathways for impacts associated with the Proposed Scheme to affect the receiving ecological environment (e.g., geological, hydrogeological and hydrological data etc.).

19 The potential impacts are examined in order to define the potential zone of influence of the Proposed Scheme on the receiving environment. This then informs the assessment of whether the Proposed Scheme will result in significant effects on any European sites; i.e. affect the conservation objectives supporting the favourable conservation condition of the European sites' Qualifying Interests (QIs) or Special Conservation Interests (SCIs).

## 3.1 Overview

20 The Proposed Scheme has an overall length of approximately 10km from end to end online with additional offline upgrades (comprising the installation of traffic management measures, i.e., minor upgrades to junctions and traffic signage) and quiet street treatment of approximately 2km and 1.5km respectively. The Proposed Scheme will be comprised of two main alignments, namely from Templeogue to Terenure (3.7km), and from Rathfarnham to the City Centre (6.3km).

21 The Templeogue to Terenure section will commence on the R137 Tallaght Road, east of the M50 junction 11 interchange. From here, the Proposed Scheme is routed via the R137 along Tallaght Road and Templeogue Road, through Templeogue Village, to Terenure Cross, where it joins the Rathfarnham to City Centre section.

22 The Rathfarnham to City Centre section will commence on the R821 Grange Road at the junction with Nutgrove Avenue, and is routed along the R821 Grange Road, the R115 Rathfarnham Road, the R114 Rathfarnham Road, Terenure Road East, Rathgar Road, Rathmines Road Lower, Richmond Street South, Camden Street Upper and Lower and Wexford Street as far as the junction with the R110 at Kevin Street Lower and Cuffe Street where priority bus lanes end. From Cuffe Street to Dame Street along Redmond's Hill, Aungier Street, and South Great George's Street the route will involve a traffic lane and a cycle track in both directions where it will join the prevailing traffic management regime in the city centre.

23 In addition to the above, an alternative cycle facility will be provided along Harold's Cross Road / Terenure Road North between Terenure Cross and Parkview Avenue, as well as along Bushy Park Road, Wasdale Park, Wasdale Grove, Zion Road and Orwell Road.

24 For the purposes of describing the Proposed Scheme it has been split into four main sections which have also been divided as follows:

- Section 1: Tallaght Road to Rathfarnham Road;
- Section 2: Nutgrove Avenue to Terenure Road North – Grange Road, Rathfarnham Road;
- Section 3: Terenure Road North to Charleville Road – Terenure Road East, Rathgar Road; and,
- Section 4: Charleville Road to Dame Street.

25 The Proposed Scheme includes an upgrade of the existing bus priority and cycle facilities. The scheme includes a substantial increase in the level of bus priority provided along the corridor, including the provision of additional lengths of bus lane resulting in improved journey time reliability. Throughout the Proposed Scheme bus stops will be enhanced to improve the overall journey experience for bus passengers and cycle facilities will be substantially improved with segregated cycle tracks provided along the links and protected junctions with enhanced signalling for cyclists provided at junctions.

26 Moreover, pedestrian facilities will be upgraded and additional signalised crossings will be provided. In addition, urban realm works will be undertaken at key locations with higher-quality materials, planting, and street furniture provided to enhance the pedestrians' experience.

27 The main characteristics of the Construction Phase of the Proposed Scheme that have potential for ecological impact are:

- Site preparation and clearance;
- Removal of existing boundaries, pavements, lighting columns, bus stops, and signage;
- Protection and / or diversion of buried services;
- Road widening, pavement reconstruction, and kerb improvements;
- Reconfiguration of traffic lanes throughout;
- Permanent land take at a number of areas across the Proposed Scheme including:
    - 74 residential properties; and,
    - 38 non-residential properties or land, including commercial, healthcare and educational institutes.
- Temporary land take at a number of areas across the Proposed Scheme, in particular
    - Rathfarnham Castle boundary Wall; and,
    - Bushy Park along the Templeogue Road.
- Installation of new bus stops and junction / roundabout modification;
- Property boundary reinstatement, signage replacement; relocation of and/or installation of lighting columns; and
- Landscaping and tree planting, and reinstatement of temporary land acquisitions.

## 3.2 Structural Works

### *3.2.1 Retaining Walls*

28 There are no retaining walls greater than 1.5m (classified as principal structures) being impacted. All walls with a height of less than 1.5m are classified as minor retaining walls and as such not predicted to interfere with ecological receptors, as there is only one such wall (structure RW01 adjacent to access / service road at 252 – 256 Templeogue Road, a length of approximately 15m).

### *3.2.2 Templeogue Archway*

29 The existing free standing stone arch adjacent to the R137 Templeogue Road will be cleared of the overgrown vegetation which currently covers it and conserved in its existing location. The existing fencing around the arch will be removed and the arch opened up to the public realm. It is proposed to install high quality stone paving, decorative lighting and soft landscaping elements around the arch as well as to construct a new footpath running behind the arch.

## 3.3 Surface Water Drainage Infrastructure

30 The surface water drainage system for the Proposed Scheme will discharge to 18 catchment areas based on topography to the following surface water receptors: Owenadoher River (Owenadoher _010), River Dodder (Dodder _040), Grand Canal, Liffey Estuary Upper and Lower including London Bridge Pumping house and Ringsend WwTP, which then discharges to Liffey Estuary Lower, before ultimately draining to Dublin Bay. All drainage outfall discharges to surface waters represent point discharges. For the Proposed Scheme, there will be a net increase of 7,435m2 in the impermeable area ultimately discharging to Dublin Bay. The drainage design principles ensure that all runoff from increases in impermeable areas will be attenuated and there will be no net increase in the surface water flow discharged to these receptors.

31 The proposed drainage design includes the relocation and addition of drainage gullies as necessary. Attenuation will be in the form of oversized pipes, tree pits, surface water channels, sealed drains, filter drains and rain gardens. These SuDS measures will allow a level of treatment and / or attenuation to be provided before discharging to the network, slightly reducing the impact on water quality as well as preventing an increase in runoff rates.

32 Sustainable Urban Drainage Systems (SuDS) solutions are summarised in Table 1.

***Table 1: Summary of Impermeable Areas and SuDS proposed* by waterbody**

| Waterbody | Approx. Impermeable Surface Area | | | SuDS measures Proposed |
|---|---|---|---|---|
| | Existing ($m^2$) | Additional ($m^2$) | Percentage change (%) | |
| Dodder_040 | 12,604 | 3,673 | 29 | Filter drain, Rain garden, Surface water channel |
| Dodder_050 | 4,958 | 1,069 | 22 | Tree pit, Filter drain, Sealed drain, Rain garden |
| Owenadoher _010 | 1822 | 1405 | 77 | Tree pit, Filter drain, Over-sized pipe , Sealed drain |
| Ringsend | 11,904 | 2,015 | 17 | Tree pit, Rain garden, Filter drain, Oversized pipe |

### 3.4 Construction Compounds

33 The locations of the Construction Compounds in relation to the Proposed Scheme have been selected due to the amount of available space, its location near the majority of the Proposed Scheme major works and its access to the National and Regional Road network. There will be six Construction Compounds for the Proposed Scheme. They will be located in the following locations:

- TR1 – Located south of the Spawell roundabout, at the Tallaght Road / Spawell Link Road junction;
- TR2 – Located north-west of Terenure Road North, between Eaton Road and Eagle Hill Avenue;
- TR3 – Located along Dodder View Road, across the road from Bushy Park, in the greenfield area between Dodder View Road, Woodview Cottages and Church Lane;
- TR4 – Located on Military Road, perpendicular to Rathmines Road Lower, south of St Marys College;
- TR5 – Located on Richmond Street South, on the slip road between Richmond Street South and Harcourt Road; and,
- TR6 – Located on Spawell Link Road, between Spawell Roundabout and Firhouse Road.

34 The locations of the Construction Compounds are shown in Images 1-6. These Construction Compounds will contain a site office, and welfare facilities for NTA personnel and contractor personnel. Limited car parking will be allowed at the Construction Compounds. Materials such as topsoil, subsoil, concrete, rock, etc., will be stored at the Construction Compounds for reuse as necessary. Items of plant and equipment will also be stored within the Construction Compounds. The Construction Compounds will be in place for the duration of the Construction Phase of the Proposed Scheme, estimated at approximately 24 months.

35 The Construction Compounds will be engineered with appropriate services. Water, wastewater, power, and communications connections will be organised by the appointed contractor. At work areas along the Proposed Scheme, where permanent provisions (for the duration of the construction programme) are not practicable, appropriate temporary provisions will be made including the use of generators if required. Temporary welfare facilities will need to be used, for example, portable toilets in the vicinity of works. Wastewater from temporary welfare facilities will be collected and disposed of to a suitably licenced facility.

36 Following completion of the Construction Phase, the Construction Compounds will be cleared and reinstated to match pre-existing conditions.

***Image 1 Location and Extent of Construction Compound TR1***

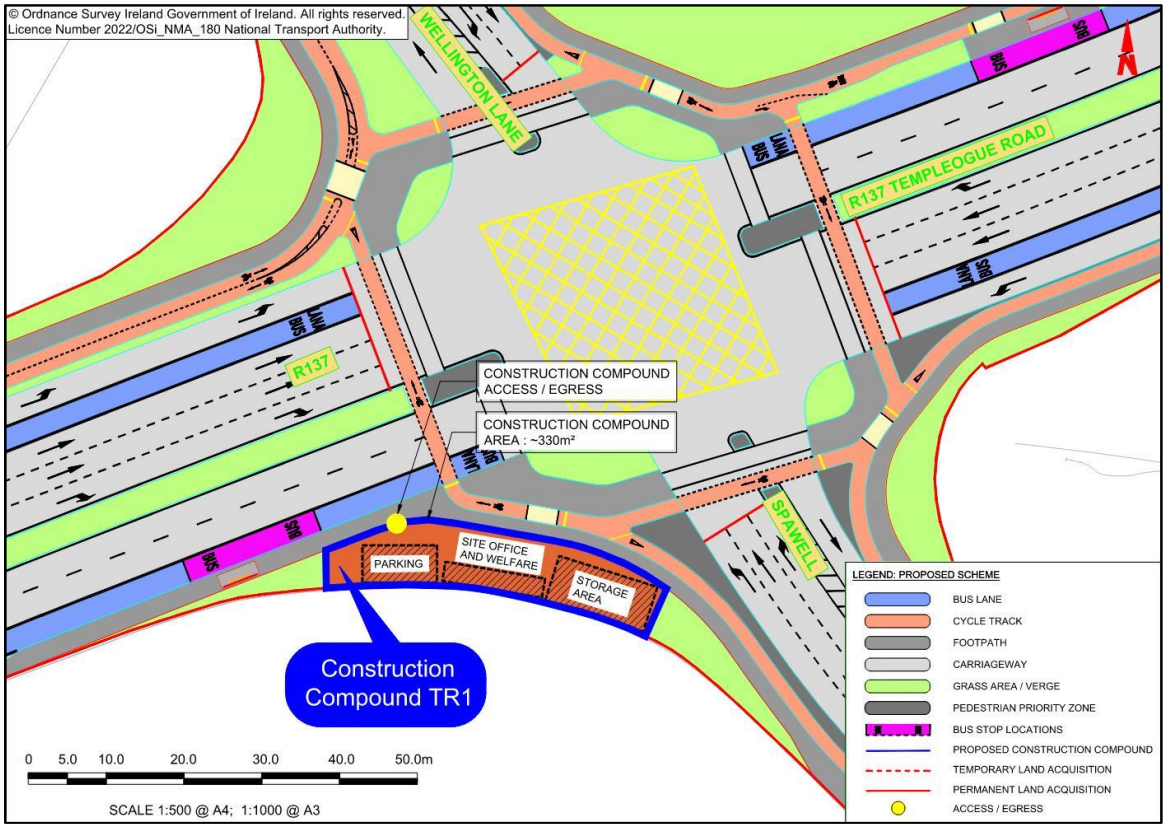



***Image 2 Location and Extent of Construction Compound TR2***

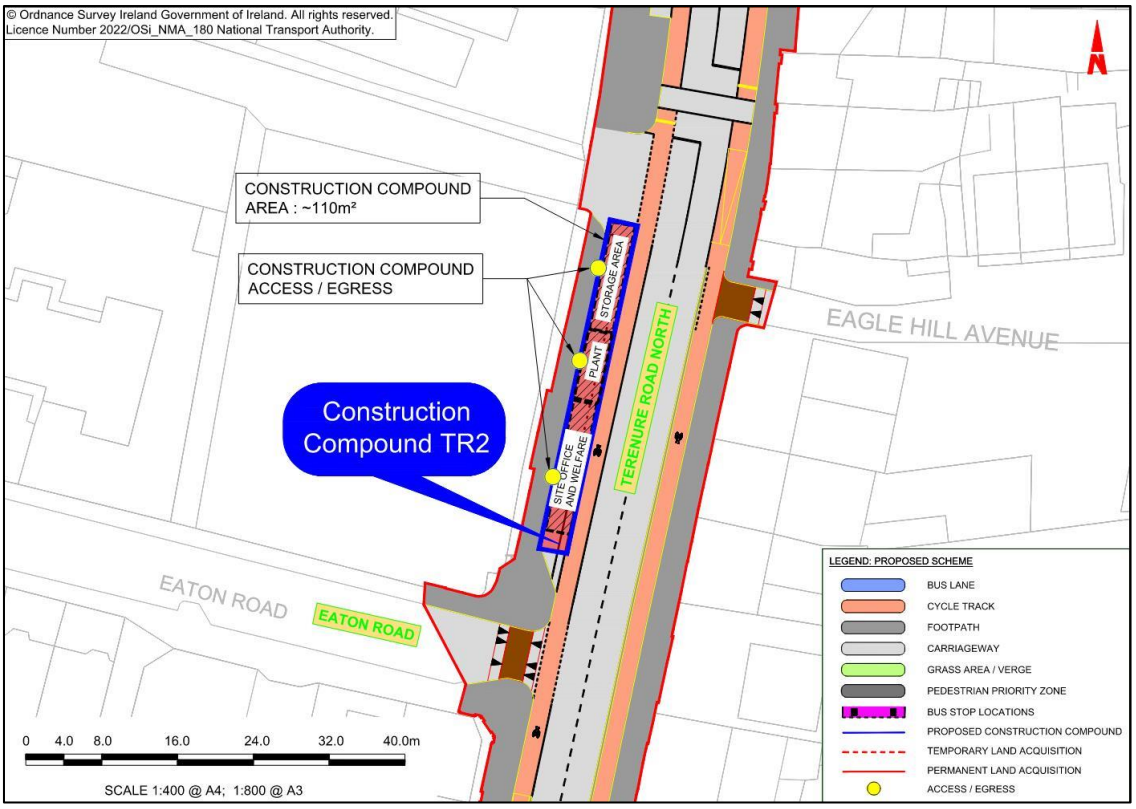


***Image 3 Location and Extent of Construction Compound TR3***

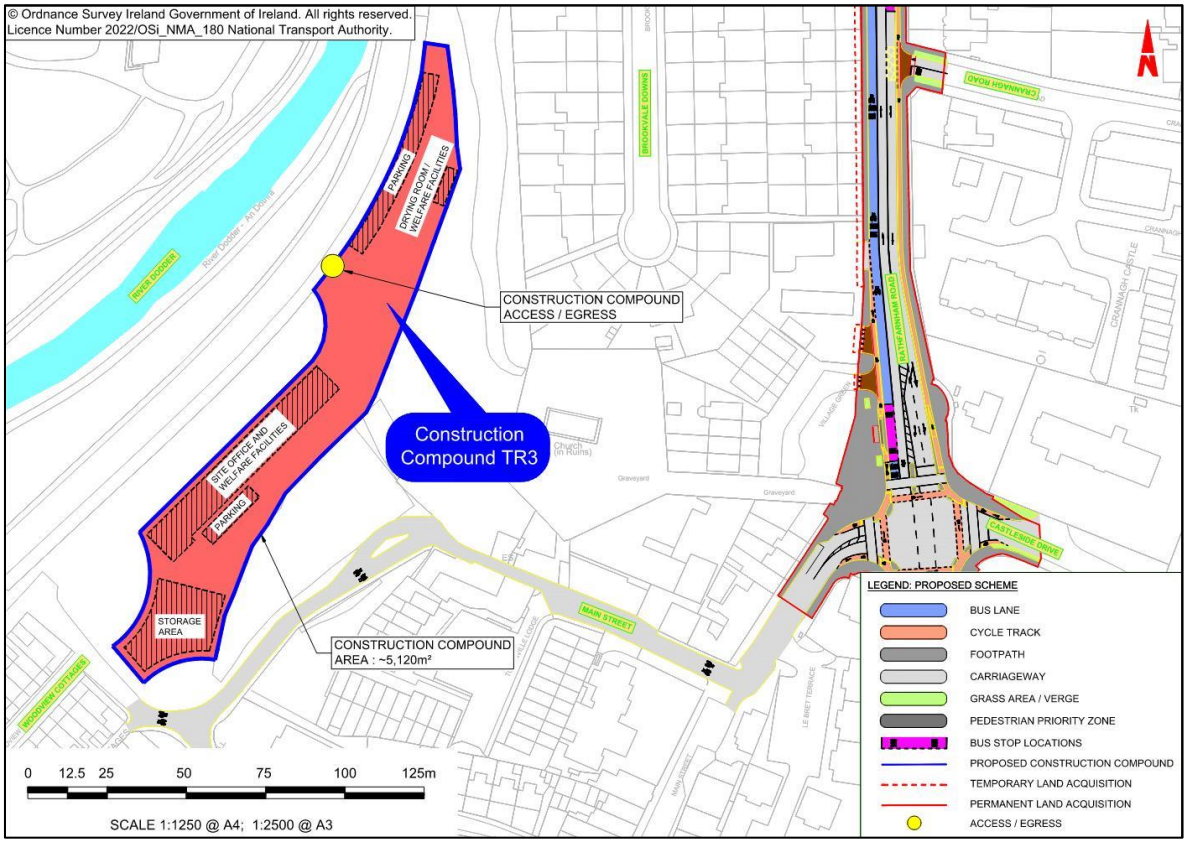



***Image 4 Location and Extent of Construction Compound TR4***

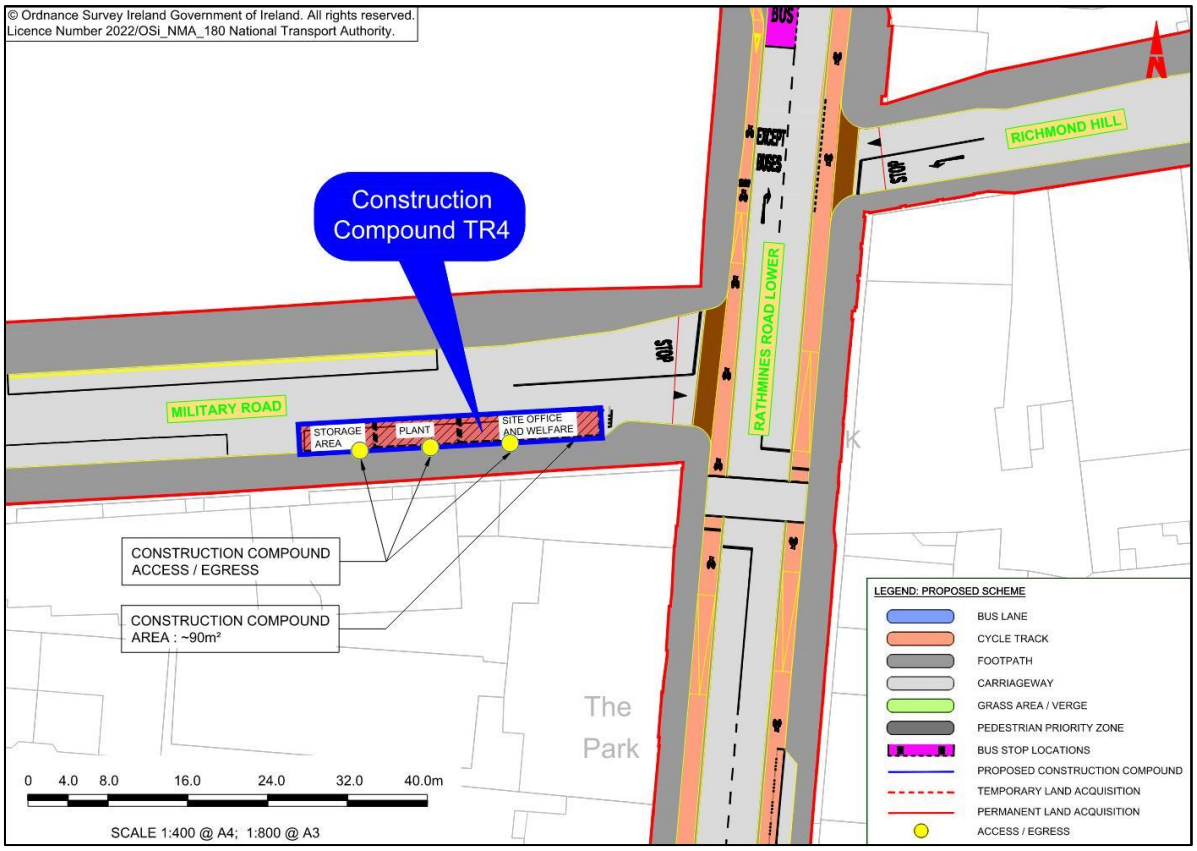


***Image 5 Location and Extent of Construction Compound TR5***

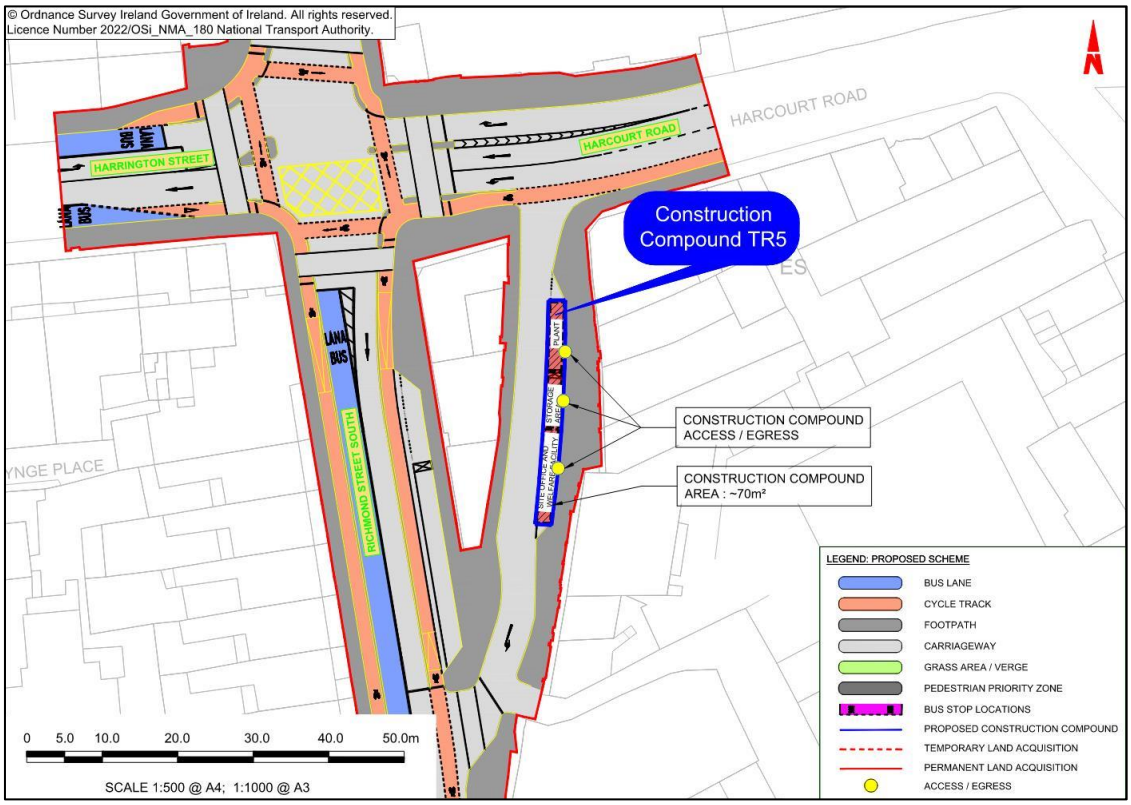
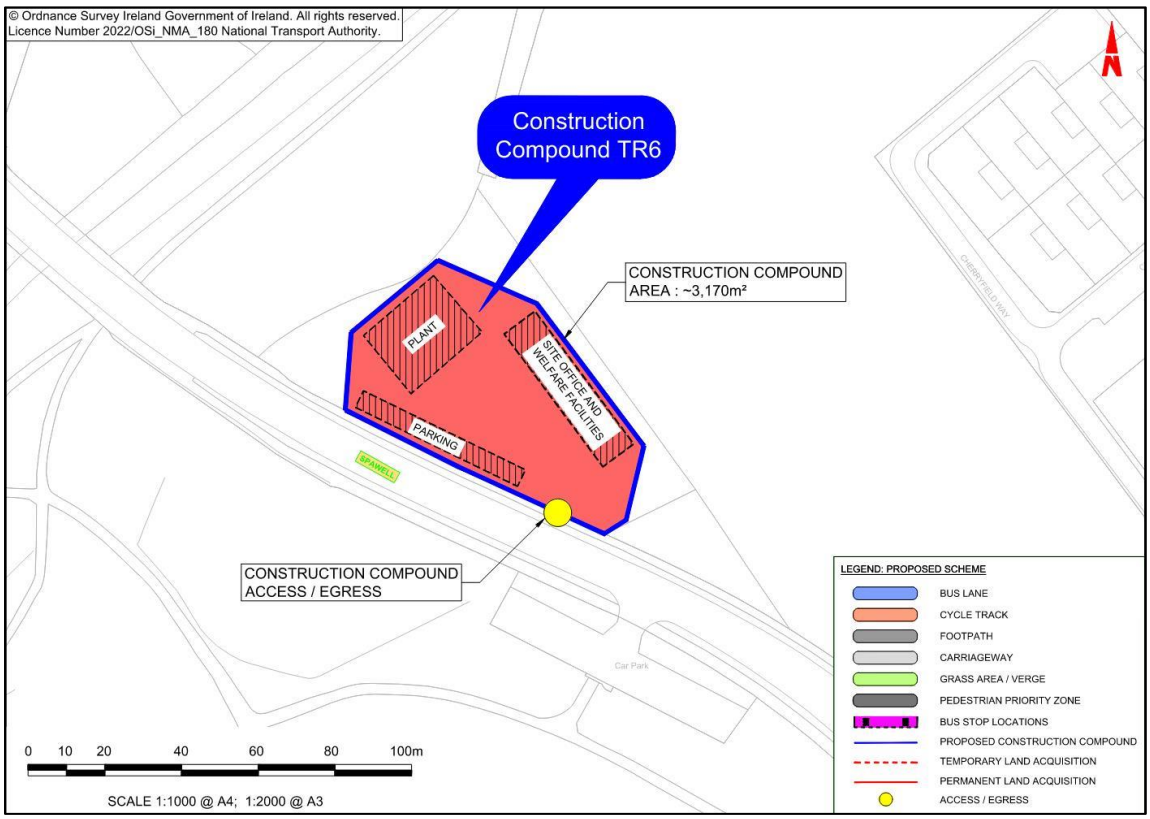



***Image 6 Location and Extent of Construction Compound TR6***



### 3.5 Estimated Construction Phase Duration

37 The duration of the Construction Phase is estimated to be 24 months.

### 3.6 Operational Phase

38 The main characteristics of the Operational Phase of the Proposed Scheme that have potential for likely significant effects on European sites and their QI / SCI include:

- The presence and operation (traffic) of the road;
- The presence of additional lighting; and
- Routine maintenance.

## 4 Methodology

### 4.1 Scientific and Technical Competence Relied Upon

39 This NIS was co-authored by Laura Higgins, Kristie Watkin-Bourne and Caroline Kelly and Tim Ryle, and reviewed by Emmi Virkki, Suvi Harris and Aebhín Cawley of Scott Cawley Ltd. The background and experience of the authors and contributors to this report are set out below.

*Laura Higgins*

40 Laura Higgins is a Senior Ecologist with Scott Cawley Ltd. and has worked at the company since 2018. She holds a first class honours degree in Natural Sciences, with a specialisation in Zoology from Trinity College Dublin. Laura has worked on a wide range of residential, commercial, and infrastructural projects across Ireland, and her current role involves project management and survey management of complex projects. She regularly carries out assessments and prepares reports including Ecological Impact Assessments, Environmental Impact Assessment Report chapters and Appropriate Assessment reports. Her ecological field survey experience includes habitat, invasive species, amphibian, bird, mammal and bat surveys.

*Kristie Watkin-Bourne*

41 Kristie Watkin-Bourne is a Senior Consultant Ecologist at Scott Cawley Ltd. She holds a first-class honours degree in Physical Geography from Swansea University, and a first-class master's degree in Applied Environmental Science from University College Dublin. She is a CIEEM Member (Qualifying) and is experienced in conducting a range of terrestrial and aquatic ecological surveys for habitat and site appraisals, species monitoring, and impact assessment. With five years consultancy experience, Kristie has a wide range of experience in Appropriate Assessment, Ecological Impact Assessment, Cumulative Impact Assessment, and Strategic Environmental Assessment of plans and projects within the Irish planning environment. Kristie has worked on behalf of public sector bodies including Irish Water, The National Transport Authority, and several County Councils in addition to private developers across infrastructure, renewable energy, and residential development projects.

*Caroline Kelly*

42 Caroline holds an honours degree in Environmental Biology, from University College Dublin (UCD) and a Masters in Applied Ecological Assessment from University College Cork (UCC). She is a Principal Ecologist at Scott Cawley Ltd., having worked at the company since 2015. Caroline has experience in habitat survey and assessment (including Annex I habitats and legally protected sites) in a range of terrestrial, freshwater and coastal environments, surveys for protected species (e.g., bats, badger, otter), bird surveys (both breeding and overwintering), and surveys for invasive species. Whilst working at Scott Cawley Ltd. Caroline has managed ecological assessments for a wide range of projects including tourism, recreational, industrial, commercial, residential, transport and renewable energy developments.

Tim Ryle

43 Tim Ryle is a Principal Ecologist with Scott Cawley Ltd. He holds an honours degree in Botany from University College Dublin and was later awarded a Ph.D. from the same institution. He is a full Member of

the Institute of Environmental Scientists. Tim is an experienced ecological consultant with twenty years' experience in private consultancy in designing, undertaking and managing a wide range of ecological survey and in assessing impacts and designing mitigation measures and biodiversity enhancements, in particular for protected species including badgers, otters, bats, birds, amphibians as well as habitats of conservation importance. He is also experienced in undertaking appropriate Assessment for small-scale development projects and larger infrastructural projects, land plans as well as national/government plans.

*Emmi Virkki*

44 Emmi Virkki is a Senior Ecologist with Scott Cawley Ltd. with over six years of experience. She obtained an honours degree in Environmental Biology, from University College Dublin and a Masters degree in Environmental Science from the same institution. Her professional experience comprises of work with clients at both government and private levels. Emmi's specialism is ornithology, but she is also skilled in an extensive range of surveys, including terrestrial surveys for flora, fauna and non-native invasive species in all key Irish habitats. Her experience also comprises of work on monitoring projects for national surveys of Annex I habitats in sand dune and saltmarsh habitats. She has considerable experience in designing, undertaking and managing a wide range of ecological surveys, assessing impacts and designing mitigation measures and biodiversity enhancements. Emmi's experience includes a significant number of small to large scale projects where she was actively involved in to inform impact assessment for planning purposes. She has authored and assisted in the preparation of numerous Ecological Impact Assessment (EcIA), Preliminary Ecological Appraisal (PEA) and Appropriate Assessment (AA) reports, as well as Biodiversity Chapter of Environmental Impact Assessment (EIA) reports, for linear infrastructure, residential, commercial, educational and industrial projects.

*Suvi Harris*

45 Suvi Harris is a Senior Environmental Project Manager at Scott Cawley Ltd. Suvi holds an honours degree BSc. in Botany from University College Dublin and a PhD. in Environmental Risk Assessment from University College Dublin. Suvi is a Full member of the CIEEM. Suvi has over 8 years' experience in environmental consultancy and over 12 years' experience in the environmental field with a particular focus on aquatics. Suvi has worked on national and international multidisciplinary teams developing environmental and ecological solutions for engineering challenges. Suvi leads, coordinates and assists on a range of areas including EIA, AA, Water Framework Directive Compliance Assessment, Surface Water Impact Assessment, Sustainability Appraisal, Planning, Licencing etc. Suvi holds a deep technical understanding of the relevant National and European Legislation which govern environmental protection and planning in Ireland.

*Aebhín Cawley*

46 Aebhín Cawley is the Chief Executive Officer with Scott Cawley Ltd. She holds an honours degree in Zoology from Trinity College, Dublin and a postgraduate diploma in Physical Planning at Trinity. She is a Chartered Environmentalist (Cenv) with the Society for the Environment (Soc Env) and a Full Member of the CIEEM. Aebhin Cawley is an experienced ecological consultant with extensive experience in public and private sector projects including complex development types including infrastructure, renewable energy and ports. Aebhín has delivered lectures and training on Appropriate Assessment to a range of organisations and professional institutes and regularly provides Appropriate Assessment training to local authorities and other public sector organisations. She authored guidelines on Appropriate Assessment for the EPA and delivered training on its application to its inspectorate.

### 4.2 Guidance and Approach

47 This NIS has been prepared having regard to the following documents.

<u>European Commission Guidance</u>

- *Assessment of Plans and Projects in Relation to Affecting Natura 2000 sites: Methodological Guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC* (European Commission 2021);
- *Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC* (European Commission 2019);

- *Communication from the Commission on the Precautionary Principle* (European Commission 2000)[2];
- *Nature and Biodiversity Cases – Ruling of the European Court of Justice* (European Commission 2006);
- *Interpretation Manual of European Union Habitats. Version EUR 28.* (European Commission 2013); and,
- *Article 6 of the Habitats Directive – Rulings of the European Court of Justice* (European Commission 2014).

Irish Guidance

- *Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities* (Department of Environment, Heritage and Local Government 2010 revision);
- Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. *Circular NPW 1/10 & PSSP 2/10* (NPWS, 2010); and,
- *OPR Practice Note PN01. Appropriate Assessment Screening for Development Management* (Office of the Planning Regulator, 2021).

48 In addition, regard has been had to guidance in characterising impacts, including determining magnitude and significance of impacts, as relevant in the application to Appropriate Assessment and European sites, including

- *Guidelines for Ecological Impact Assessment in the UK and Ireland* (Chartered Institute of Ecology and Environmental Assessment, 2018).

### 4.3 Assessment Methodology

49 As per Section 1, this NIS assesses the final Proposed Scheme design (Section 3). To account for minor updates in design, an additional walkover survey (Section 4.6) and desktop surveys were undertaken to ensure the most up to date data informed this assessment. The assessment presented in this NIS has been undertaken with respect to the requirements of Article 6(3) of the Habitats Directive and in consideration of all potential impact sources and pathways connecting the Proposed Scheme to European sites, in view of the conservation objectives supporting the conservation condition of all sites' QIs / SCIs, as detailed below.

50 The Proposed Scheme was analysed and assessed to identify the potential impacts associated with the Proposed Scheme that could affect the ecological environment.

51 From this, the zone of influence (ZoI) of the Proposed Scheme was defined. Based on the identified impacts, and their zone of influence, the European sites potentially at risk of any direct or indirect impacts were identified.

[2] The precautionary principle is a guiding principle that derives from Article 191 of the Treaty on the Functioning of the European Union and has been developed in the case law of the European Court of Justice (e.g. ECJ case C-127/02 – Waddenzee, Netherlands).

This guidance document notes that the precautionary principle "*covers those specific circumstances where scientific evidence is insufficient, inconclusive or uncertain and there are indications through preliminary objective scientific evaluation that there are reasonable grounds for concern that the potentially dangerous effects on the environment, human, animal or plant health may be inconsistent with the chosen level of protection*".

Applying the precautionary principle in the context of screening for appropriate assessment requires that where there is uncertainty or doubt about the risk of significant effects on a European site(s), it should be assumed that significant effects are likely and AA must be carried out.

52 A source-pathway-receptor approach has been applied. In order for an impact to occur, there must be a risk enabled by having a source (e.g., water abstraction or construction works), a receptor (e.g., a European site or its Qualifying Interest(s) (QIs) or Special Conservation Interest(s) (SCIs) species), and a pathway between the source and the receptor (e.g., by air for air borne pollution, or a pathway by a watercourse for mobilisation of pollution). For an impact to occur, all three elements must exist; the absence or removal of one of the elements means there is no possibility for the impact to occur.

53 The identification of source-pathway-receptor connection(s) between the Proposed Scheme and European sites essentially is the process of identifying which European sites are within the zone of influence of the Proposed Scheme, and therefore potentially at risk of significant effects. The zone of influence is defined as the area within which the Proposed Scheme could affect the receiving environment such that it could potentially have significant effects on the QI habitats or QI / SCI species of a European site, or on the achievement of their conservation objectives (as defined in CIEEM, 2018).

54 The identification of a source-pathway-receptor risk does not automatically mean that significant effects will arise. Rather, the likelihood of significant effects will depend upon the characteristics of the source (e.g., extent and duration of construction works), the characteristics of the pathway (e.g., direction and strength of prevailing winds for air borne pollution) and the characteristics of the receptor (e.g., the sensitivities of the European site and its QIs / SCIs). However, identification of the risk does mean that there is a possibility of an effect on the environment occurring, with the significance of the effect depending upon the nature and exposure to the risk and the characteristics of the receptor. Where there is any uncertainty, the precautionary principle has been applied.

55 This assessment has been undertaken in consideration of all potential impact sources and pathways connecting the Proposed Scheme to European sites, in view of the conservation objectives supporting the conservation condition of the sites' QIs / SCIs.

56 The conservation objectives relating to each European site and its QIs / SCIs are expressed generally for SACs as "to maintain or restore the favourable conservation condition of the Annex I habitat(s) and / or the Annex II species for which the cSAC has been selected", and for SPAs "to maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA".

57 Following on from this, and as defined in the Habitats Directive, favourable conservation status (or condition, at a site level) of a habitat is achieved when:

- its natural range, and area it covers within that range, are stable or increasing, and
- the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
- the conservation status of its typical species is favourable.

58 The favourable conservation status (or condition, at a site level) of a species is achieved when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

59 Where site-specific conservation objectives have been prepared for the individual European sites, these include a series of specific attributes and targets against which effects on conservation condition, or integrity, can be measured, i.e. an impact which affects the achievement of favourable conservation condition, as measured by the attributes and targets, is an impact on site integrity.

60 In the case of Irelands Eye SPA, Howth Head Coast SPA, Lambay Island SPA, Skerries Islands SPA, The Murrough SPA and Dalkey Islands SPA, site-specific conservation objectives are not available, or have not been published. Where that is the case, sample site specific attributes and targets for a given QI / SCI have

been compiled, based on those from other relevant European sites, as a guide in assessing how the conservation condition of these sites could potentially be affected by the Proposed Scheme.

61 In the case of some QIs / SCIs in certain European sites, the conservation objective is to restore rather than maintain conservation condition and this distinction is taken into account in the assessment; as is any legacy damage to European sites which has occurred since their designation, insofar as possible.

62 To the extent that the assessment carried out as part of the preparation the NIS has found that the Proposed Scheme has the potential to impact on European sites, avoidance and mitigation measures have been included as part of the Proposed Scheme to ensure that, in view of the European sites' conservation objectives, the Proposed Scheme will not adversely affect the integrity of the sites concerned.

### 4.4 Desk Study

63 The data sources used to inform the assessment presented in this report are as follows (accessed in August 2022):

- Online data available on European sites and on Natural Heritage Areas (NHAs) or proposed Natural Heritage Areas (pNHAs) from www.npws.ie[3], including conservation objectives documents;
- Online data records available on National Biodiversity Data Centre Database (NBDC Online Database, 2022) (See Appendix IV);
- Online data records made available via an NPWS data request (NPWS, 2022);
- Information on the status of EU protected habitats and species in Ireland (National Parks & Wildlife Service, 2019a, 2019b and 2019c);
- Ordnance Survey Ireland (OSI) orthophotography for the Proposed Scheme study area available from www.osi.ie;
- Bus Connects Drone Imagery, surveyed November 2020;
- Habitat and species GIS datasets provided by the NPWS, including Article 12 and Article 17 data[4];
- Records from the Botanical Society of Britain and Ireland (BSBI, 2022);
- Information contained within the Flora of County Dublin[5];
- Environmental information/data for the area available from the EPA website www.epa.ie;
- Information on the status of EU protected habitats and species in Ireland[6];
- Information on light-bellied Brent goose inland feeding sites[7];

[3] The following SAC and SPA GIS boundary datasets are the most recently available at the time of writing: SAC_ITM_2023_01 and SPA_ITM_2021_10.

[4] Article 17 of the EU Directive on the Conservation of habitats, Flora and Fauna (Habitats Directive) requires that all member states report to the European Commission every six years on the status and on the implementation of the measures taken under the Habitats Directive. In a similar manner, there is an obligation to report on the status and trends of bird species required under Article 12 of the Bird's Directive.

[5] Doogue, D., Nash, D., Parnell, J., Reynolds, S. & Wyse Jackson, P. (eds) (1998). Flora of County Dublin. The Dublin Naturalists' Field Club, Dublin.

[6] NPWS (2019a). The Status of EU Protected Habitats and Species in Ireland. Volume 1: Summary Overview. Unpublished NPWS report.

[7] Scott Cawley Ltd. (2017). Natura Impact Statement – Information for Stage 2 Appropriate Assessment for the Proposed Residential Development St. Paul's College, Sybill Hill, Raheny, Dublin 5.

- The results of ecological surveys undertaken as part of the Environmental Impact Assessment (EIA) studies for the Proposed Scheme (see Sections 4.6 and 5 below for details); and,
- Information on the location, nature and design of the Proposed Scheme.

### 4.5 Consultation

64 Table 2 outlines the Appropriate Assessment issues raised during consultation.

***Table 2: Appropriate Assessment Issues raised during Consultation***

| Consultee | Phase / Date of Consultation | Issues Raised | Relevant Section of the NIS where this is addressed |
|---|---|---|---|
| Department of Housing, Local Government and Heritage<br>(formerly Department of Culture, Heritage and the Gaeltacht | 30 July 2019<br>Ref. G Pre00165/2019 | The Department recommend identification, description, and assessment of direct and indirect impacts of the Proposed Scheme on the following features:<br>• Biodiversity in general and with specific attention to Natura 2000 sites.<br>• Habitats and species protected under the Habitats Directive, such as Annex I habitats, Annex II species and their habitats, and Annex IV species and their breeding sites and resting places (wherever they occur), bird species protected under the Birds Directive, such as Annex I species and other regularly occurring migratory species, and their habitats (wherever they occur).<br>• Species and / or habitats listed in the Habitats Directive inside or outside of Natura 2000 sites be recorded.<br>• Species protected under the Wildlife Act, including protected flora.<br>• Important bird areas such as those identified by Birdwatch Ireland.<br>• Features of the landscape which are of major importance as biodiversity corridors to wild flora or fauna, as referenced in Article 10 of the Habitats Directive. | Section 5.1. European Sites; Section 4.6 Baseline Surveys; Section 5 Overview of the Receiving Environment and Section 7 Assessment of Potential Effects on European sites |
| | | Detailed bird surveys should be undertaken at all times of the year to establish areas of the Proposed Scheme used by birds should be included in the AA. | Section 4.6 Baseline Surveys |
| | | The Department requires that the Appropriate Assessment addresses the issue of invasive alien plant and animal species and include detailed methods to ensure accidental introduction or spreading does not occur. The Department recommended that an Invasive Species Action Plan should form part of the planning application. | Section 6.4 Habitat Degradation as a Result of Introducing/ Spreading Non-native Invasive Species |
| | | Department recommended that the Cumulative impacts of the Proposed Scheme be considered, to include interaction between different and / or approved plans and projects in the same area as the Proposed Scheme. | Section 1 Introduction; Section 2 Legislative Context; Section 6.6 Disturbance and Displacement Impacts and Section 9 |

| Consultee | Phase / Date of Consultation | Issues Raised | Relevant Section of the NIS where this is addressed |
|---|---|---|---|
| | | | In-Combination Assessment |
| | | The Department recommended that the Proposed Scheme be subject to Appropriate Assessment in respect of potential to impact Natura 2000 sites either alone or in combination with other plans or projects, and must contain complete (contain no lacunae), precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the works proposed on the protected site concerned.<br>To assess mitigations, the following tasks must be completed:<br>• List each of the measures to be introduced (e.g., noise bunds, tree planting).<br>• Explain how the measures will avoid the adverse impacts on the site.<br>• Explain how the measures will reduce the adverse impacts on the site.<br>Then, for each of the listed mitigation measures:<br>• Provide evidence of how they will be secured and implemented and by whom.<br>• Provide evidence of the degree of confidence in their likely success.<br>• Provide a timescale, relative to the project or plan, when they will be implemented.<br>Where residual impacts remain, further mitigation measures may be required:<br>• Evidence should be provided of how mitigation measures will be monitored.<br>• Monitoring should take place immediately down-stream of the Proposed Scheme.<br>• The applicant should not use any proposed post construction monitoring as mitigation to supplement inadequate information in the assessment. | The Proposed Scheme has been subject to Screening for AA and the production of a Natura Impact Statement, which accompanies the planning application.<br><br>Section 6 Potential Impacts, Zone of Influence and Identifying European Sites at Risk of Effects |
| Inland Fisheries Ireland (IFI) | 3 November 2020 (letter received from IFI) | No specific AA concerns raised, although the fisheries importance of the River Dodder and Grand Canal were noted and requirements for consideration including IFI Guidelines on protection of fisheries during construction works in and adjacent to waters" (2016) | N/A |

### 4.6 Baseline Surveys

65 Baseline ecological surveys were undertaken as necessary to inform environmental assessments of the Proposed Scheme. This section describes those ecological surveys which are relevant to and have informed the assessment of likely significant effects on European sites, presented in the NIS.

### *4.6.1 Habitats and Flora*

66 Habitat surveys were carried out by Scott Cawley Ltd. between June and August 2018. Confirmatory surveys were subsequently undertaken again in August and October 2020 to check and update the presence and extent of habitats found in the 2018 habitat surveys. Additional habitat surveys were carried out to capture any changes to the Proposed Scheme since 2018 and include more recent surveys in May 2022 and August 2022. One new location along the Spawell Link Road, which is currently a Construction Compound for an unrelated project and is proposed since the publication of the AA Screening in August 2022 to be used for the Proposed Scheme, was surveyed on the 22nd December 2022. All habitats located within or immediately adjacent to the Proposed Scheme footprint were surveyed and mapped to level three of the Heritage Council's habitat codes, after Fossitt[8] and in accordance with *Best Practice Guidance for Habitat Survey and Mapping*[9]. The level of field data quality was also recorded. Plant species present that were either representative of a habitat or considered to be of conservation interest (i.e., those listed on the Flora (Protection) Order (S.I. 235 / 2022) or listed in the 'Threatened' category or higher on the Red List for vascular plants and bryophytes) were recorded, along with their relative abundances. Non-native invasive plant species listed on the Third Schedule of the (Birds and Natural Habitats) Regulations were also recorded. The habitat's extent was mapped onto an aerial photograph, with GPS points taken where a habitat's extent could not be clearly identified from the aerial photograph. Vascular plant nomenclature follows that of the *New Flora of the British Isles 4th Edition*[10].

67 A desk study was carried out to identify all hydrological crossing points within the footprint of the Proposed Scheme. However, construction methodologies for the Proposed Scheme do not involve in-stream works, modifications to banks or significant disturbance as a result of the Proposed Scheme. Aquatic habitat surveys were carried out in earlier survey phases and the results of these are presented in order to contextualise the potential ecological receptors. However, it should be noted that no instream works are proposed as part of the Proposed Scheme and the desk study identified no sites where water bodies may be subject to significant disturbance.

### *4.6.2 Fauna Surveys*

68 Ecological surveys relevant to this NIS include habitat surveys, surveys for the presence or signs of terrestrial, mobile Annex II species (i.e., otter *Lutra lutra*), and surveys for Special Conservation Interest bird species. Dedicated fisheries or aquatic surveys were previously undertaken for an earlier iteration of the Proposed Scheme but are not required for this assessment as the Proposed Scheme is not hydrologically connected to any European site designated for Annex II fish species or white-clawed crayfish *Austropotamobius pallipes*. The nearest known European site designated for Atlantic salmon *Salmo salar*, river lamprey *Lampetra fluviatilis* and brook lamprey *L. planeri* is the River Boyne and River Blackwater SAC, located approximately 39km north-west of the Proposed Scheme in the Boyne River catchment. The nearest known European site designated for white-clawed crayfish is the River Barrow and River Nore SAC, which is located approximately 54km south-west of the Proposed Scheme in the River Barrow catchment, River Nore catchment and River Ballyteigue-Bannow river catchment.

### *4.6.3 Otter*

69 The footprint of the Proposed Scheme and suitable lands immediately adjacent were surveyed for otter activity as part of the multi-disciplinary walkover survey, undertaken between June and August 2018, and in August 2020, as well as follow on surveys in February 2021 and March 2022. The areas where otters were surveyed from included 150 metres up and downstream (where safely accessible) for watercourse

[8] Fossitt, J.A. (2000). *A Guide to Habitats in Ireland*. Heritage Council, Kilkenny.

[9] Smith, G.F., O'Donoghue, P., O'Hora, K. & Delaney, E. (2011). *Best Practice Guidance for Habitat Survey and Mapping*. The Heritage Council Church Lane, Kilkenny, Ireland.

[10] Stace, C. (2019) *New Flora of the British Isles. 4th Edition.* C&M Floristics.

crossings for which evidence of otter activity was known. The presence / absence of these species was surveyed through the detection of field signs such as tracks, markings, feeding signs, and droppings as well as by direct observation. In addition, the study area was surveyed for the presence of otter holts. Where present, any evidence of use was recorded.

70 A desk study was carried out to identify all hydrological crossing points within the footprint of the Proposed Scheme. Construction methodologies which involved in-stream works, modifications to banks or significant disturbance were deemed to require otter surveys.

71 Given the known sensitivity of watercourses in proximity to the Proposed Scheme, dedicated otter surveys were carried out at three sites. Surveys were undertaken at the River Dodder and along the Owenadoher River. A corridor of approximately 150m upstream and downstream of the Proposed Scheme was surveyed to identify the presence of otter holts in September 2020. The Proposed Scheme, which is the subject of this assessment, does not involve any in-stream works, and the results of otter surveys are provided within this report in the context of the baseline environment.

72 Additional otter surveys (150m upstream and downstream of the Proposed Scheme) at the proposed crossing point at the Dodder_040, and Grand Canal were completed in February 2021 and March 2022.

### *4.6.4 Kingfisher*

73 A desk study was carried out to identify all hydrological crossing points within the footprint of the Proposed Scheme. Construction methodologies which involved in-stream works, modifications to banks or significant disturbance were deemed to require habitat suitability assessments for nesting kingfisher *Alcedo atthis*. During early iterations of the Proposed Scheme, the desk study identified three sites where water bodies may be subject to significant disturbance as a consequence of the Proposed Scheme. One of these sites is located at the proposed crossing point on the River Dodder, connecting Dodder View Road to Rathdown Park. The other survey locations are at the proposed crossing points of the Owenadoher River, in the vicinity of Butterfield Avenue, Rathfarnham, at Woodview Cottages and Saint Mary's Avenue. As such, kingfisher habitat suitability assessment surveys were undertaken approximately 500m upstream and downstream from these locations to identify kingfisher potential in September 2020 as well as follow on surveys in March / April 2022 which captured changes in the Proposed Scheme design including the removal of all in-stream works.

74 The suitability of water features and associated foraging, roosting, and nesting habitats, located within or directly adjacent to the Proposed Scheme, were assessed for kingfisher potential in September 2020 and during follow on surveys in March / April 2022. Where suitable habitat existed, surveys extended approximately 500m upstream and downstream of the proposed crossing point. Evidence of kingfisher activity at any potential nest holes was recorded.

### *4.6.5 Birds*

75 The results of the desk study have informed the assessment of likely significant effects on breeding bird species arising from the Proposed Scheme.

76 A desk study was carried out to identify any potential suitable inland feeding and / or roosting sites for winter birds located within or directly adjacent to the Proposed Scheme. This included a review of recent aerial photography and known inland feeding sites for the SCI bird species light-bellied Brent goose *Branta bernicla hrota* (Scott Cawley Ltd., 2017). A habitat suitability assessment was carried out in October 2020 to verify the suitability of potential inland feeding / roosting sites identified during the desk study.

77 There are three potentially suitable grassland sites which have the potential to host wintering bird species and for some which will be subject to habitat loss, or disturbance at the very least by the Proposed Scheme. Field surveys were carried out to confirm the suitability or presence of wintering birds at Bushy Park, Dodder View Road / Church Lane and Dodder View Road, adjacent to Rathdown Park; which were deemed suitable for wintering birds and were surveyed twice a month, between the months February and March 2020 and again between October 2020 to March 2021 (CBC1012WB001 and CBC1012WB002). Additional surveys were carried out at CBC1012WB003 and CBC1012WB001) twice monthly between the months

October 2021 and March 2022. Additional transects (CBC1012WB003) were commissioned to capture subsequent design iteration changes of the Proposed Scheme. The results of the desk study and field surveys (See Figures 2 and 5) have informed the assessment of likely significant effects on wintering bird species arising from the Proposed Scheme.

78 In general, the approach was a 'look-see' methodology (based on Gilbert *et al.,* 1998). All birds present within a site were identified with reference to Collins Bird Guide (Svensson, 2009) to confirm identification (where necessary), and were recorded using the British Trust for Ornithology (BTO) species codes. The total flock size of birds present, their general location within the site and any activity exhibited were also recorded. Evidence of bird droppings were recorded at pre-defined transect lines. The length of the transect line varied per site. Transect lines were only completed at sites where no bird species were present, to avoid any potential disturbance.

#### *4.6.6 Aquatic Survey*

79 Following on from Inland Fisheries Ireland (IFI) consultation response and the known ecological sensitivity of the River Dodder and (its tributaries), aquatic habitat surveys were carried out in earlier survey phases at a number of locations, namely CBC1012 AR001 along the River Dodder at Rathdown Park, along the Owenadoher River at Rathfarnham Mill CBC1012AR002 as well as upstream survey sites on the Owenadoher River at CBC1012AR004 and CBC1012AR003 (Triturus Environmental Ltd., 2020).

80 No surveys were undertaken in 2022 in respect of the Proposed Scheme, as no watercourses are being intersected or interfered with. The results of the 2020 surveys are presented in order to contextualise the receiving environment.

## 5 Overview of the Receiving Environment

### 5.1 European Sites

81 The Proposed Scheme does not overlap with any European site. The Proposed Scheme is hydrologically connected to Dublin Bay via the receiving surface water network. The nearest European sites in Dublin Bay are South Dublin Bay and River Tolka Estuary SPA and South Dublin Bay SAC, which are located approximately 3.2km downstream of the closest point of the Proposed Scheme to the Liffey Estuary Upper. The Proposed Scheme is also hydrologically connected to the Wicklow Mountains SAC (via the River Dodder and the Owenadoher River), located approximately 6.1km upstream from the Proposed Scheme.

82 There are eight European sites located in Dublin Bay which are downstream of the Proposed Scheme. These sites include South Dublin Bay SAC, North Dublin Bay SAC, Howth Head SAC, Rockabill to Dalkey Island SAC, Dalkey Islands SPA, Howth Head Coast SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA. European sites will be hydrologically connected to the Proposed Scheme via the the River Dodder, the Owenadoher River, the Grand Canal, the Liffey Estuary Upper, the Liffey Estuary Lower and Ringsend Wastewater Treatment Plant. In addition, Wicklow Mountains SAC is located upstream of the Proposed Scheme and is hydrologically connected to the Proposed Scheme via the Dodder_050.

83 There are nine SPAs designated for SCI species that are known to forage and / or roost at inland sites across Dublin City and / or utilise Dublin Bay. These include South Dublin Bay and River Tolka SPA, North Bull Island SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, Malahide Estuary SPA, and The Murrough SPA.

84 In addition, Rockabill to Dalkey Island SAC and Lambay Island SAC are designated for mobile QI species known to utilise the Dublin Bay and the Liffey Estuary Lower.

85 The European sites present in the vicinity of the Proposed Scheme are shown in Figure 4 at the end of this report and listed in Table 3, along with their Qualifying Interests (QIs) / Special Conservation Interests (SCIs) and proximity to the Proposed Scheme.

***Table 3: European sites in the vicinity of the Proposed Scheme***

| **European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)** | **Location Relative to the Proposed Scheme)** |
|---|---|
| **Special Area of Conservation (SAC)** | |
| **Rye Water Valley / Carton SAC [001398]**<br>1014 Narrow-mouthed Whorl Snail *Vertigo angustior*<br>1016 Desmoulin's Whorl Snail *Vertigo moulinsiana*<br>7220 Petrifying springs with tufa formation (Cratoneurion)*<br><br>*S.I. No.494 / 2018 – European Union Habitats (Rye Water Valley / Carton Special Area of Conservation 001398) Regulations 2018.*<br>NPWS (2021a) *Conservation Objectives: Rye Water Valley / Carton SAC 001398.* Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage. | Approximately 13.4km from the Proposed Scheme |
| **South Dublin Bay SAC [000210]**<br>1140 Mudflats and sandflats not covered by seawater at low tide<br>1210 Annual vegetation of drift lines<br>1310 *Salicornia* and other annuals colonising mud and sand<br>2110 Embryonic shifting dunes<br><br>*S.I. No. 525 / 2019 – European Union Habitats (South Dublin Bay Special Area of Conservation 000210) Regulations 2019.*<br>NPWS (2013a) *Conservation Objectives: South Dublin Bay SAC 000210.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | Approximately 3.2km from the Proposed Scheme |
| **North Dublin Bay SAC [000206]**<br>1140 Mudflats and sandflats not covered by seawater at low tide<br>1210 Annual vegetation of drift lines<br>1310 *Salicornia* and other annuals colonising mud and sand<br>1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae)<br>1395 Petalwort *Petalophyllum ralfsii*<br>1410 Mediterranean salt meadows (Juncetalia maritimi)<br>2110 Embryonic shifting dunes<br>2120 Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes)<br>2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)*<br>2190 Humid dune slacks<br><br>*S.I. No. 524 / 2019 – European Union Habitats (North Dublin Bay Special Area of Conservation 000206) Regulations 2019.*<br>NPWS (2013b) *Conservation Objectives: North Dublin Bay SAC 000206.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | Approximately 5.8km from the Proposed Scheme |
| **Rockabill to Dalkey Island SAC [003000]**<br>1170 Reefs<br>1351 Harbour porpoise *Phocoena phocoena* | Approximately 11.3km from the Proposed Scheme |

| European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats) | Location Relative to the Proposed Scheme) |
|---|---|
| *S.I. No. 94 / 2019 – European Union Habitats (Rockabill To Dalkey Island Special Area Of Conservation 003000) Regulations 2019.*<br>NPWS (2013c) *Conservation Objectives: Rockabill to Dalkey Island SAC 003000.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | |
| **Howth Head SAC [000202]**<br>1230 Vegetated sea cliffs of the Atlantic and Baltic coasts<br>4030 European dry heaths<br><br>*S.I. No. 524 / 2021 – European Union Habitats (Howth Head Special Area of Conservation 000202) Regulations 2021.*<br>NPWS (2016) *Conservation Objectives: Howth Head SAC 000202.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs. | Approximately 11.5km from the Proposed Scheme |
| **Wicklow Mountains SAC [002122]**<br>3110 Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)<br>3160 Natural dystrophic lakes and ponds<br>4010 Northern Atlantic wet heaths with *Erica tetralix*<br>4030 European dry heaths<br>4060 Alpine and Boreal heaths<br>6130 Calaminarian grasslands of the Violetalia calaminariae<br>6230 Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe)*<br>7130 Blanket bogs (* if active bog)<br>8110 Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)<br>8210 Calcareous rocky slopes with chasmophytic vegetation<br>8220 Siliceous rocky slopes with chasmophytic vegetation<br>91A0 Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles<br>1355 *Lutra lutra* (Otter)<br><br>NPWS (2017a) *Conservation Objectives: Wicklow Mountains SAC 002122.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs. | Approximately 6.2km from the Proposed Scheme |
| **Knocksink Wood SAC [000725]**<br>7220 Petrifying Springs with Tufa formation (Cratoneurion)*<br>91A0 Old Sessile oak woods with *Ilex* and *Blechnum* in the British Isles<br>91E0 Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnion incanae, Salicion albae)*<br><br>*S.I. No. 93 / 2019- European Union Habitats (Knocksink Wood Special Area of Conservation 000725) Regulations 2019.*<br>NPWS (2021b) *Conservation objectives for Knocksink Wood SAC [000725].* Version 1.0. Department of Housing, Local Government and Heritage. | Approximately 10.1km from the Proposed Scheme |

| European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats) | Location Relative to the Proposed Scheme) |
|---|---|
| **Ballyman Glen SAC [000713]**<br>7220 Petrifying springs with tufa formation (Cratoneurion)*<br>7230 Alkaline fens<br><br>*S.I. No. 92 / 2019- European Union Habitats (Ballyman Glen Special Area of Conservation 000713) Regulations 2019.*<br>NPWS (2019a) *Conservation objectives: Ballyman Glen SAC [000713].* Version 1.0. Department of Housing, Local Government and Heritage. | Approximately 12.2km from the Proposed Scheme |
| **Baldoyle Bay SAC [000199]**<br>1140 Mudflats and sandflats not covered by seawater at lowtide<br>1310 *Salicornia* and other annuals colonizing mud and sand<br>1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae)<br>1410 Mediterranean salt meadows (Juncetalia maritimi)<br><br>*S.I. No. 472 / 2021 – European Union Habitats (Baldoyle Bay Special Area of Conservation 000199) Regulations 2021.*<br>NPWS (2012) *Conservation Objectives: Baldoyle Bay SAC 000199.* Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | Approximately 10.7km from the Proposed Scheme |
| **Glenasmole Valley SAC [001209]**<br>6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)<br>6410 *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)<br>7220 Petrifying springs with tufa formation (Cratoneurion)*<br><br>*S.I. No. 345 / 2021 – European Union Habitats (Glenasmole Valley Special Area of Conservation 001209) Regulations 2021.*<br>NPWS (2021c) *Conservation objectives for Glenasmole Valley SAC [001209].* Version 1.0. Department of Housing, Local Government and Heritage. | Approximately 4.5km from the Proposed Scheme |
| **Ireland's Eye SAC [002193]**<br>1220 Perennial vegetation of stony banks<br>1230 Vegetated sea cliffs of the Atlantic and Baltic coasts<br><br>*S.I. No. 501 / 2017 - European Union Habitats (Ireland's Eye Special Area of Conservation 002193) Regulations 2017.*<br>NPWS (2017b) *Conservation objectives: Ireland's Eye SAC [002193].* Version 1.0. Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs. | Approximately 14.7km from the Proposed Scheme |
| **Malahide Estuary SAC [000205]**<br>1140 Mudflats and sandflats not covered by seawater at low tide<br>1310 *Salicornia* and other annuals colonising mud and sand | Approximately 13.5km from the Proposed Scheme |

| European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats) | Location Relative to the Proposed Scheme) |
|---|---|
| 1320 *Spartina* swards (Spartinion maritimae)[11]<br>1330 Atlantic salt meadows *(*Glauco-Puccinellietalia maritimae)<br>1410 Mediterranean salt meadows (Juncetalia maritimi)<br>2120 Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes)<br>2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)*<br><br>*S.I. No. 91 / 2019 - European Union Habitats (Malahide Estuary Special Area of Conservation 000205) Regulations 2019.*<br>NPWS (2013d) *Conservation Objectives: Malahide Estuary SAC 000205.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | |
| **Lambay Island SAC [000204]**<br>1170 Reefs<br>1230 Vegetated sea cliffs of the Atlantic and Baltic coasts<br>1364 Grey seal *Halichoerus grypus*<br>1365 Harbour seal *Phoca vitulina*<br><br>*S.I. No. 294 / 2019 - European Union Habitats (Lambay Island Special Area of Conservation 000204) Regulations 2019.*<br>NPWS (2013e) *Conservation Objectives: Lambay Island SAC 000204. Version 1*. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | Approximately 22.1km from the Proposed Scheme |
| **Special Protection Area (SPA)** | |
| **South Dublin Bay and River Tolka Estuary SPA [004024]**<br>A046 Light-bellied Brent Goose *Branta bernicla hrota*<br>A130 Oystercatcher *Haematopus ostralegus*<br>A137 Ringed Plover *Charadrius hiaticula*<br>A141 Grey Plover *Pluvialis squatarola*<br>A143 Knot *Calidris canutus*<br>A144 Sanderling *Calidris alba*<br>A149 Dunlin *Calidris alpina*<br>A157 Bar-tailed Godwit *Limosa lapponica*<br>A162 Redshank *Tringa totanus*<br>A179 Black-headed Gull *Chroicocephalus ridibundus*<br>A192 Roseate Tern *Sterna dougallii*<br>A193 Common Tern *Sterna hirundo*<br>A194 Arctic Tern *Sterna paradisaea*<br>A999 Wetland and Waterbirds | Approximately 2.9km from the Proposed Scheme |

[11] 1320 *Spartina* swards (Spartinion maritimae) habitat is included within the conservation objectives document for Malahide Estuary SAC, but not within the Statutory Instruments document. This is likely because *Spartina* is an invasive alien species in Ireland and as such NPWS have not set a conservation target for it, nor is there a requirement to assess the habitat as a QI.

| European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats) | Location Relative to the Proposed Scheme) |
|---|---|
| *S.I. No. 212 / 2010 - European Communities (Conservation of Wild Birds (South Dublin Bay and River Tolka Estuary Special Protection Area 004024)) Regulations 2010.*<br>NPWS (2015a) *Conservation Objectives: South Dublin Bay and River Tolka Estuary SPA 004024*. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | |
| **North Bull Island SPA [004006]**<br>A046 Light-bellied Brent Goose *Branta bernicla hrota*<br>A048 Shelduck *Tadorna tadorna*<br>A052 Teal *Anas crecca*<br>A054 Pintail *Anas acuta*<br>A056 Shoveler *Anas clypeata*<br>A130 Oystercatcher *Haematopus ostralegus*<br>A140 Golden Plover *Pluvialis apricaria*<br>A141 Grey Plover *Pluvialis squatarola*<br>A143 Knot *Calidris canutus*<br>A144 Sanderling *Calidris alba*<br>A149 Dunlin *Calidris alpina*<br>A156 Black-tailed Godwit *Limosa limosa*<br>A157 Bar-tailed Godwit *Limosa lapponica*<br>A160 Curlew *Numenius arquata*<br>A162 Redshank *Tringa totanus*<br>A169 Turnstone *Arenaria interpres*<br>A179 Black-headed Gull *Chroicocephalus ridibundus*<br>A999 Wetlands & Waterbirds<br><br>*S.I. No. 211 / 2010 - European Communities (Conservation of Wild Birds (North Bull Island Special Protection Area 004006)) Regulations 2010.*<br>NPWS (2015b) *Conservation Objectives: North Bull Island SPA 004006.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | Approximately 5.8km from the Proposed Scheme |
| **Dalkey Islands SPA [004172]**<br>A192 Roseate Tern *Sterna dougallii*<br>A193 Common Tern *Sterna hirundo*<br>A194 Arctic Tern *Sterna paradisaea*<br><br>*S.I. No. 238 / 2010 - European Communities (Conservation of Wild Birds (Dalkey Islands Special Protection Area 004172)) Regulations 2010.*<br>NPWS (2022a) *Conservation objectives for Dalkey Islands SPA [004172].* First Order Site-specific Conservation Objectives. Version 1. Department of Housing, Local Government and Heritage. | Approximately 12.2km from the Proposed Scheme |
| **Wicklow Mountains SPA [004040]**<br>A098 Merlin *Falco columbarius*<br>A103 Peregrine *Falco peregrinus* | Approximately 6.2km from the Proposed Scheme |

| European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats) | Location Relative to the Proposed Scheme) |
|---|---|
| *S.I. No. 586 / 2012 - European Communities (Conservation of Wild Birds (Wicklow Mountains Special Protection Area 004040)) Regulations 2012.*<br>NPWS (2022b) *Conservation objectives for Wicklow Mountains SPA [004040].* First Order Site-specific Conservation Objectives. Version 1. Department of Housing, Local Government and Heritage. | |
| **Baldoyle Bay SPA [004016]**<br>A046 Light-bellied Brent Goose *Branta bernicla hrota*<br>A048 Shelduck *Tadorna tadorna*<br>A137 Ringed Plover *Charadrius hiaticula*<br>A140 Golden Plover *Pluvialis apricaria*<br>A141 Grey Plover *Pluvialis squatarola*<br>A157 Bar-tailed Godwit *Limosa lapponica*<br>A999 Wetland and Waterbirds<br><br>*S.I. No. 275 / 2010 - European Communities (Conservation of Wild Birds (Baldoyle Bay Special Protection Area 004016)) Regulations 2010.*<br>NPWS (2013f) *Conservation Objectives: Baldoyle Bay SPA 004016. Version 1.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | Approximately 10.9km from the Proposed Scheme |
| **Howth Head Coast SPA [004113]**<br>A188 Kittiwake *Rissa tridactyla*<br><br>*S.I. No. 185 / 2012 - European Communities (Conservation of Wild Birds (Howth Head Coast Special Protection Area 004113)) Regulations 2012.*<br>NPWS (2022c) *Conservation objectives for Howth Head Coast SPA [004113].* First Order Site-specific Conservation Objectives. Version 1. Department of Housing, Local Government and Heritage. | Approximately 14.1km from the Proposed Scheme |
| **Ireland's Eye SPA [004117]**<br>A017 Cormorant *Phalacrocorax carbo*<br>A184 Herring Gull *Larus argentatus*<br>A188 Kittiwake *Rissa tridactyla*<br>A199 Guillemot *Uria aalge*<br>A200 Razorbill *Alca torda*<br><br>*S.I. No. 240 / 2010 - European Communities (Conservation of Wild Birds (Ireland's Eye Special Protection Area 004117)) Regulations 2010.*<br>NPWS (2022d) *Conservation objectives for Ireland's Eye SPA [004117].* First Order Site-specific Conservation Objectives. Version 1. Department of Housing, Local Government and Heritage. | Approximately 14.5km from the Proposed Scheme |
| **Malahide Estuary SPA [004025]**<br>A005 Great Crested Grebe *Podiceps cristatus*<br>A046 Light-bellied Brent Goose *Branta bernicla hrota*<br>A048 Shelduck *Tadorna tadorna*<br>A054 Pintail *Anas acuta*<br>A067 Goldeneye *Bucephala clangula*<br>A069 Red-breasted Merganser *Mergus serrator* | Approximately 13.5km from the Proposed Scheme |

| European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats) | Location Relative to the Proposed Scheme) |
|---|---|
| A130 Oystercatcher *Haematopus ostralegus*<br>A140 Golden Plover *Pluvialis apricaria*<br>A141 Grey Plover *Pluvialis squatarola*<br>A143 Knot *Calidris canutus*<br>A149 Dunlin *Calidris alpina*<br>A156 Black-tailed Godwit *Limosa limosa*<br>A157 Bar-tailed Godwit *Limosa lapponica*<br>A162 Redshank *Tringa totanus*<br>A999 Wetland and Waterbirds<br><br>*S.I. No. 285 / 2011 - European Communities (Conservation of Wild Birds (Malahide Estuary Special Protection Area 004025)) Regulations 2011.*<br>NPWS (2013g) *Conservation Objectives: Malahide Estuary SPA 004025.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | |
| **Rogerstown Estuary SPA [004015]**<br>A043 Greylag Goose *Anser anser*<br>A046 Light-bellied Brent Goose *Branta bernicla hrota*<br>A048 Shelduck *Tadorna tadorna*<br>A056 Shoveler *Anas clypeata*<br>A130 Oystercatcher *Haematopus ostralegus*<br>A137 Ringed Plover *Charadrius hiaticula*<br>A141 Grey Plover *Pluvialis squatarola*<br>A143 Knot *Calidris canutus*<br>A149 Dunlin *Calidris alpina alpina*<br>A156 Black-tailed Godwit *Limosa limosa*<br>A162 Redshank *Tringa totanus*<br>A999 Wetlands<br><br>*S.I. No. 271 / 2010 - European Communities (Conservation of Wild Birds (Rogerstown Estuary Special Protection Area 004015) Regulations 2010.*<br>NPWS (2013h) *Conservation Objectives: Rogerstown Estuary SPA 004015*. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | Approximately 18.1km from the Proposed Scheme |
| **Lambay Island SPA [004069]**<br>A009 Fulmar *Fulmarus glacialis*<br>A017 Cormorant *Phalacrocorax carbo*<br>A018 Shag *Phalacrocorax aristotelis*<br>A043 Greylag Goose *Anser anser*<br>A183 Lesser Black-backed Gull *Larus fuscus*<br>A184 Herring Gull *Larus argentatus*<br>A188 Kittiwake *Rissa tridactyla*<br>A199 Guillemot *Uria aalge*<br>A200 Razorbill *Alca torda*<br>A204 Puffin *Fratercula arctica* | Approximately 21.9km from the Proposed Scheme |

| European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats) | Location Relative to the Proposed Scheme) |
|---|---|
| *S.I. No. 242 / 2010 - European Communities (Conservation of Wild Birds (Lambay Island Special Protection Area 004069)) Regulations 2010.*<br>NPWS (2022e) *Conservation objectives for Lambay Island SPA [004069].* First Order Site-specific Conservation Objectives. Version 1. Department of Housing, Local Government and Heritage. | |
| **The Murrough SPA [004186]**<br>A001 Red-throated Diver *Gavia stellata*<br>A043 Greylag Goose *Answer anser*<br>A046 Light-bellied Brent Goose *Branta bernicla hrota*<br>A050 Wigeon *Anas penelope*<br>A052 Teal *Anas crecca*<br>A179 Black-Headed Gull *Chroicocephalus ridibundus*<br>A184 Herring Gull *Larus argentatus*<br>A195 Little Tern *Sterna albifrons*<br>A999 Wetland and Waterbirds<br>*S.I. No. 298 / 2011 - European Communities (Conservation of Wild Birds (The Murrough Special Protection Area 004186)) Regulations 2011.*<br>NPWS (2022f) *Conservation objectives for The Murrough SPA [004186].* First Order Site-specific Conservation Objectives. Version 1. Department of Housing, Local Government and Heritage. | Approximately 26.3km from the Proposed Scheme |
| **Skerries Islands SPA [004122]**<br>A017 Cormorant *Phalacrocorax carbo*<br>A018 Shag *Phalacrocorax aristotelis*<br>A046 Light-bellied Brent Goose *Branta bernicla hrota*<br>A148 Purple Sandpiper *Calidris maritima*<br>A169 Turnstone *Arenaria interpres*<br>A184 Herring Gull *Larus argentatus*<br>*S.I. No. 245 / 2010 - European Communities (Conservation of Wild Birds (Skerries Islands Special Protection Area 004122)) Regulations 2010.*<br>NPWS (2022g) *Conservation objectives for Skerries Islands SPA [004122].* First Order Site-specific Conservation Objectives. Version 1. Department of Housing, Local Government and Heritage. | Approximately 27.5km from the Proposed Scheme |
| **Rockabill SPA [004114]**<br>A148 Purple Sandpiper *Calidris maritima*<br>A192 Roseate Tern *Sterna dougallii*<br>A193 Common Tern *Sterna hirundo*<br>A194 Arctic Tern *Sterna paradisaea*<br>*S.I. No. 94 / 2012- European Communities (Conservation of Wild Birds (Rockabill Special Protection Area 004114)) Regulations 2012.*<br>NPWS (2013i) *Conservation objectives for Rockabill SPA [004114].* Version 1.0. Department of Arts, Heritage and the Gaeltacht. | Approximately 28.1km from the Proposed Scheme |

### 5.2 Habitats

86 The Proposed Scheme is located in a highly urbanised environment. Habitats present in the footprint of the Proposed Scheme include the following:

- Flower beds and borders (BC4);
- Stonewalls and other stonework (BL1);
- Buildings and artificial surfaces (BL3);
- Exposed sand, gravel or till (ED1);
- Spoil and bare ground (ED2);
- Depositing / lowland rivers (FW2);
- Canals (FW3);
- Amenity Grassland (Improved) (GA2);
- Dry meadows & grassy verges (GS2);
- Wet grassland (GS4);
- Residential;
- (Mixed) broadleaved woodland (WD1);
- Scattered trees and parkland (WD5);
- Hedgerows (WL1);
- Treelines (WL2);
- Scrub (WS1);
- Immature woodland (WS2); and
- Ornamental / non-native shrub (WS3).

87 None of the habitats listed above correspond to Annex I Qualifying Interest habitats. This includes Dry meadows and grassy verges habitat (GS2), which in certain situation corresponds to Lowland hay meadows (*Alopecurus pratensis, Sanguisorba officinali*s) (6510). The species and management of the habitat along the Proposed Scheme is not analogous to the Annex I hay meadow habitat.

### 5.3 Flora and Fauna Species

### 5.4 Flora

88 No records of any Annex II plant species were recorded within the footprint of the Proposed Scheme during field surveys.

89 There were three non-native invasive plant species, Japanese knotweed *Reynoutria japonica*, Himalayan balsam *Impatiens glandulifera* and three-cornered garlic Allium triquetrum listed on the Third Schedule of the Birds and Habitats Regulations which were identified along the Proposed Scheme. This species was identified in ten locations, as summarised in Table 4, none of which occurred within the proposed red line boundary, although some, as noted, occur in close proximity.

90 The desk study returned records of a total of 18 species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations across the wider study area (i.e., grid squares O12 and O13). There were 10 listed species recorded within 1km of the Proposed Scheme (NBDC Online Database, 2022); include several records of Himalayan balsam, Japanese knotweed and Nuttall's

waterweed *Elodea nuttallii* along the Grand Canal within the 2km Grid Square O13R, and water fern *Azolla filiculoides* by Grand Canal adjacent to Leeson street O1632. Bohemian knotweed *Reynoutria japonica x sachalinensis = R. x bohemica* (O142294) along the Dodder at Springfield avenue, Rathfarnham. There are also records for three-cornered garlic throughout the wider survey area, giant-rhubarb *Gunnera tinctoria* along the River Dodder at Milltown, American skunk-cabbage *Lysichiton americanus* along the River Dodder at Sean Moore Park Tallaght and giant hogweed *Heracleum mantegazzianum* along the River Dodder at Milltown and at Dodder Park, Firhouse, and Himalayan knotweed *Persicaria wallichii* within the 2km Grid Square O12J at Bushy Park.

91 Canadian waterweed *Elodea canadensis*, which was also documented from along the Grand Canal, was delisted as a third schedule species, with the introduction of the European Communities (Birds and Natural Habitats) (Amendment) Regulations 2015, S.I. No. 355 of 2015. These species were not present within the footprint of the Proposed Scheme.

92 There were ten areas on non-native invasive plant species (Japanese knotweed, Himalayan balsam and three-cornered garlic) listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations, 2011 identified adjacent to, but outside of the Proposed Scheme. These locations are summarised in Table 4.

***Table 4: Non-native invasive plant species listed on the Third Schedule of the Birds and Habitats Regulations 2011 recorded along or adjacent to the Proposed Scheme***

| Reference | Species | Location |
|---|---|---|
| CBC1012IAPS001 | Japanese knotweed *Reynoutria japonica* | Small stand on northern bank of River Dodder |
| CBC1012IAPS002 | Japanese knotweed *Reynoutria japonica* | Small stand on northern bank of Owenadoher River |
| CBC1012IAPS003 | Himalayan balsam *Impatiens glandulifera* | Along River Dodder edge at Austin Clarke Bridge |
| CBC1012IAPS004 | Three-cornered leek *Allium triquetrum* | Aquatic specialist survey 2020 "was present locally" along the banks of the Owenadoher River |
| CBC1012IAPS005 | Japanese knotweed *Reynoutria japonica* | Aquatic survey 2020 (Triturus Environmental Ltd.) noted it "was common throughout the site" along the banks of the Owenadoher River |
| CBC1012IAPS006 | Japanese knotweed *Reynoutria japonica* | Aquatic survey 2020 (Triturus Environmental Ltd.) noted it was scattered throughout the site (but more prevalent upstream)" along the banks of the Owenadoher River |
| CBC1012IAPS007 | Japanese knotweed *Reynoutria japonica* | Along the River Dodder beside Bushy Park pond |
| CBC1012IAPS008 | Himalayan balsam *Impatiens glandulifera* | Four stands on southern bank of River Dodder, adjacent western side of Pearse Bridge |
| CBC1012IAPS009 | Himalayan balsam *Impatiens glandulifera* | Large strand with extensive cover on southern bank of River Dodder, adjacent eastern side of Pearse Bridge |
| CBC1012IAPS010 | Himalayan balsam *Impatiens glandulifera* | Sparse single strands on northern and southern banks of River Dodder |

### 5.5 Otter

93 Evidence of otter was identified at two river water bodies hydrologically connected to the Proposed Scheme, namely the Dodder_040, and the Owenadoher River . Evidence of a holt CBC1012M003 within the roots of a sycamore tree was identified along the Owenadoher River, 145m north-west of the Proposed Scheme, at Butterfield Avenue (and 145m south-west of Construction Compound TR3) during multidisciplinary surveys in the early part of the and during aquatic surveys conducted by Triturus Environmental Ltd. in 2020. This holt site was subsequently monitored under NPWS licence issued to Scott Cawley Ltd. using a camera trap for a period of two months with no otter activity observed during that time.

94 Evidence of otter in the form of spraints and potential slides were recorded throughout the Owenadoher and Dodder_040 river water bodies in 2020, 2021 and 2022 field surveys. The Proposed Scheme crosses the Dodder_040 at the existing Pearse Bridge, spraints were observed along prominent abutments of the existing Bridge and on boulders near the riverbanks, mammal tracks and slides were also recorded. Two otter spraints were also observed on bank stabilisation rock armour along the banks of the River Dodder, beneath the existing bridge along the Spawell Link Road, approximately 80m north-west of Construction Compound TR6. Evidence of otter was not recorded at the proposed Grand Canal crossing point.

95 Desk study records include nine live sightings along the River Dodder including one record at Firhouse in 2012 approximately 1km upstream of the Proposed Scheme, one record at Dodder Valley Park in 2016 adjacent to the Proposed Scheme, one record at Bushy Park in 2017 adjacent to the Proposed Scheme, and four records adjacent to the Proposed Scheme at Rathfarnham; two in 2011 and two in 2017. There was one record returned along the Grand Canal at Charlemont Mall in 2016 approximately 100m from the Proposed Scheme (NBDC Online Database, 2022).

96 The River Dodder is known to support a large otter population. During the Dublin City Otter Survey[12] three holts were recorded along the River Dodder between M50 and Templeogue. The Proposed Scheme crosses the River Dodder approximately 2km downstream of two holts which were observed at Dodder Valley Park and approximately 1km upstream of a holt at The High School Rathfarnham, during the Dublin City Otter Survey (Macklin *et al*., 2019). Macklin *et al.* (2019) also recorded otter signs e.g., tracks and slides etc., distributed along the course of the River Dodder between the M50 junction and the Liffey Estuary Lower.

97 The Owenadoher River, is located 90m west of the Proposed Scheme at Butterfield Avenue. The river water body discharges into the Dodder_040 at Bushy Park and is known for its high otter activity in the context of Dublin City. The desk study identified 30 signs along its 3.8km length. Holts and spraints were recorded within 1km of the Proposed Scheme at Rathfarnham Village. High otter activity was recorded along Whitechurch Stream, a tributary of the Owenadoher River where a holt was recorded within 2km of Rathfarnham Village (Macklin *et al*., 2019). This holt was observed again during the 2020 surveys and monitored.

98 Although not recorded during the field surveys, otter are considered to be present throughout the Grand Canal within Dublin City. The NBDC holds records for otter within 1km of the Proposed Scheme along the Grand Canal at Dolphins Barn from 2014, and at Portobello from 2016 (NBDC Online Database, 2022).

99 In an Irish context, the conservation status of otter is 'Least Concern' (Marnell *et al.,* 2019) due to population recoveries since 2009. However, otter remains 'Near Threatened' at a European and Global context) (Roos *et al.*, 2015) and is listed on Annex II and Annex IV of the Habitats Directive.

100 Wicklow Mountains SAC, the closest European site designated for otter, is located approximately 8.6km upstream of the Proposed Scheme (from the Dodder_040 proposed crossing point). The Proposed Scheme interacts with the following watercourses: the River Dodder, Owenadoher River, and Liffey Estuary Upper Lower, of which River Dodder and Owenadoher River hydrologically connect the Proposed Scheme to the

[12] Macklin, R., Brazier, B. & Sleeman, P. (2019). *Dublin City otter survey*. Report prepared by Triturus Environmental Ltd. for Dublin City Council as an action of the Dublin City Biodiversity Action Plan 2015- 2020.

Wicklow Mountains SAC. The Proposed Scheme falls within the WFD sub-catchment; Dodder_SC_010, within which the Wicklow mountains SAC is also located in. Otter territories are within the range of 7.5km for females and 21km for males (Ó' Neill *et al.*, 2008).). Therefore, Wicklow Mountains SAC may fall within the range of SCI otter, and as such, otter populations within the footprint of the Proposed Scheme could potentially be connected to the SAC population.

### 5.6 Marine mammals

101 The Proposed Scheme is hydrologically connected to Dublin Bay via the River Dodder (Dodder _040 and 050), Owenadoher River (Owenadoher _010), Grand Canal and Liffey Estuary Upper and Lower as well as Ringsend WwTP including London Bridge pumping Station.

102 Harbour seal *Phoca vitulina***,** grey seal *Halichoerus grypus,* and harbour porpoise *Phocoena phocoena* are known to be present in Dublin Bay and all are listed on Annex II of the Habitats Directive. The nearest European site for which harbour seal and grey seal have been designated is Lambay Island SAC located approximately 22.1km from the Proposed Scheme. The nearest European site for which harbour porpoise has been designated is Rockabill to Dalkey Island SAC located approximately 11.3km from the Proposed Scheme.

### 5.7 Kingfisher

103 The desk study found that kingfisher, an Annex I bird species, are known to occur within 1km of the Proposed Scheme and across the wider study area, particularly along larger, sylvan watercourse corridors. The desk study returned multiple records from River Dodder, the Owenadoher River as well as the Grand Canal. The River Dodder is adjacent to the Proposed Scheme and is hydrologically connected to the scheme via Storm water overflows. Likewise, the Proposed Scheme crosses the River Dodder and the Grand Canal, although no instream works are planned. In particular, populations of kingfisher are reported to be present along the River Dodder[13] and Owenadoher River[14]. There are also records of kingfisher on the Grand Canal, upstream of the Proposed Scheme[15].

104 Habitat suitability assessment surveys carried out in September 2020 recorded suitable habitat for nesting kingfisher within 500m of the proposed crossing point of the Owenadoher River, between Butterfield Avenue and Woodview Cottages, and along the River Dodder, in the vicinity of the proposed crossing point which will link the Dodder View Road and Rathdown Park. At the Owenadoher survey site, vertical banks represent potential suitable habitat for nesting kingfisher. Limited kingfisher habitat suitability surveys were undertaken in March / April 2022 to capture changes to the Proposed Scheme. The River Dodder survey site is considered to have limited suitability in parts for nesting kingfisher, often due to high levels of disturbance from humans and dogs, as well as alteration of the river bank e.g. downstream Dodder flood defence schemes. Overhanging trees along the River Dodder and Owenadoher River are considered to have roosting / fishing potential for kingfisher. Kingfisher were recorded on one occasion within the footprint of the Proposed Scheme (west of Pearse Bridge on the Rathfarnham road crossing of the River Dodder), during the multi-disciplinary surveys carried out in 2018.

105 The nearest European site for which this species is designated is River Boyne and River Blackwater SPA, which is located approximately 38.7km from the Proposed Scheme. Kingfisher populations within close proximity to the Proposed Scheme are not deemed to be SCI species.

[13] DCC (2015). *Dublin City Biodiversity Action Plan 2021-5*

[14] SDCC (2010). South Dublin County Heritage Plan 2010-2015

[15] FERS Ltd. (2018). *Ecological survey of Clonburris Strategic Development Zone, Clondalkin, Co. Dublin*.

### 5.8 Birds

106 The desk study returned records of three breeding gull species within 300m of the Proposed Scheme which may use inland amenity grassland feeding sites including black-headed gull *Chroicocephalus ridibundus*, herring gull *Larus argentatus* and lesser black-backed gull *Larus fuscus*.

107 The desk study returned records of a total of 47 regularly occurring wintering bird species in the wider study area (i.e., grid squares O12 and O13). Records included seven species listed under Annex I of the Birds Directive, 34 SCI species, and an additional four Red listed and two Amber listed species. The majority of wintering birds identified in the desk study are typically found in coastal, estuarine and intertidal habitats including the Tolka Estuary, North Bull Island transitional water body, and Dublin Bay. A desk-based review of lands within 300m of the Proposed Scheme returned records of eight SCI wintering bird species which may use inland amenity grassland feeding sites, including light-bellied Brent goose, black-headed gull, redshank *Tringa totanus*, golden plover *Pluvialis apricaria*, oystercatcher *Haematopus ostralegus*, herring gull, lesser-black-backed gull and common gull *Larus canus*.

108 A review of a study into light-bellied Brent goose inland feeding sites[7] has identified no known inland wintering bird feeding sites within the footprint of the Proposed Scheme. There is one known inland wintering bird feeding site within 300m of the Proposed Scheme i.e., the disturbance ZoI. Tymon Park (Major Importance,)[16] is immediately adjacent to the Proposed Scheme at its western edge at the M50 / N81 interchange.

109 Wintering bird surveys were carried out for the Proposed Scheme at three transects, namely CBC1012WB001, CBC1012WB002 and CBC1012WB003 as discussed in Section 2.5.2.3. Table 5 provides a summary of the findings of the winter bird surveys with respect to these species which are of highest conservation concern and were recorded within winter bird survey sites.

110 Wintering bird surveys were carried out for the Proposed Scheme at three locations;

- CBC1012WB001: Green space located between Church Lane and Dodder View Road, adjacent to Bushy Park Carpark. Surveyed in The area is maintained through regular cutting. Grass cover was low / moderate across the survey period, with a high herbaceous cover during spring months when daffodils *Narcissus* spp. come to flower, which covers the entire transect. Disturbance was noted as low, except during the 2020/2021 survey period there was a construction yard present for ongoing works at the River Dodder. Black-headed gulls were observed in this transect area, and an occurrence of grey heron *Ardea cinerea* during the 2019/2020 survey period.
- CBC1012WB002: Green space located between River Dodder and Dodder View Road, adjacent to Pearse Bridge. The area is maintained through regular cutting by the local authority. Grass cover was moderate across the survey period. Disturbance was noted as low within the site but is actively used by the public for recreational activities, mainly for walking through into Bushy Park. Black-headed gull was the only wintering bird species recorded on this grassland during the surveys.
- CBC1012WB003: Recreational green space located in Bushy Park, Terenure, adjacent to the Templeogue Road. The area is maintained regularly through cutting by the local authority. Grass cover was low/moderate across the survey period. Disturbance was noted as high within the site including dogs off the leash and public recreational activities (rugby, running, walking, cycling). Treelines within Bushy Park are tall and located between each green field area (i.e., pitches). No birds were recorded using this transect area during the 2020/2021 survey period, while only black-headed gull was recorded during the 2021/2022 survey season.

111 Transects CBC1012WB001 and CBC1012WB002 were surveyed over seven consecutive weeks across February and March 2020, and additionally twice a month, between the months of November 2020 and

[16] Major importance site 401+ geese; high importance site 51-400 geese; and, moderate importance site 1-50 geese as defined by Benson's study in 2009 (Benson, 2009).

March 2021. While all three transects were surveyed again twice a month, between the months of October 2021 and March 2022. Species recorded included herring gull, black-headed gull and grey heron (Table 5).

**Table 5: Wintering birds of Conservation Concern recorded at sites CBC1012WB001 to CBC1012WB003 during the wintering bird surveys**

| Common Name / Scientific Name / BTO Code | Site: Peak Count and Activity in the Study Area (2020/2021) | Conservation Importance | | | Nearest SPA Designated for SCI Species |
|---|---|---|---|---|---|
| | | BoCCI (B – Breeding / W - Wintering) | Annex I | SCI | |
| Grey heron *Ardea cinerea* (H.) | CBC1012WB001: Single individual on ground (04/03/2020) | Green (B/W) | - | Y | Wexford Harbour and Slobs SPA approximately 91km |
| Black-headed gull *Chroicocephalus ridibundus* (BH) | CBC1012WB001: 21 birds feeding within transect (28/02/2020); CBC1012WB002: Two birds feeding within transect (24/11/2020) CBC1012WB003: 21 birds feeding within transect (01/02/2022); | Amber (B/W) | - | Y | South Dublin Bay and River Tolka Estuary SPA approximately 2.6km |
| Herring gull *Larus argentatus* (HG) | CBC1012WB001: Single individual foraging within transect (11/01/2022) | Amber (B/W) | - | y | Ireland's Eye SPA approximately 14.5km |

112 Wintering bird activity was low across all visits. Table 6 compares peak counts identified across surveys to their national and international populations.

***Table 6: Wintering bird species recorded during wintering bird surveys in comparison to the 1% of its International and National Populations***

| Common Name / Scientific Name / BTO Code | Peak Count | Associated European sites within the ZoI | 1% of International Population | 1% of National Population |
|---|---|---|---|---|
| Black-headed gull *Chroicocephalus ridibundus* (BH) | 21 | South Dublin Bay and River Tolka Estuary SPA<br>North Bull Island SPA<br>The Murrough SPA | 31,000 | n/a |
| Herring Gull *Larus argentatus* (HG) | 1 | Ireland's Eye SPA<br>Lambay Island SPA<br>Skerries Islands SPA | 14,400 | n/a |

113 A review of a study into light-bellied Brent goose inland feeding sites[7] has identified one *ex-situ* wintering bird feeding site in the footprint of the Proposed Scheme, namely Tymon Park. There are no inland wintering bird feeding sites within approximately 300m of the Proposed Scheme i.e. the disturbance ZoI[17]. However, there are at least three that are within 1km of the Proposed Scheme as follows:

- Eamon Ceannt Park;
- St Mary's College RFC; and,
- Templeogue College.

114 A number of SPAs have been included on a precautionary basis for assessment as it cannot with certainty be confirmed that their Special Conservation Interest species do not use areas in the vicinity of the Proposed Scheme as *ex-situ* habitat.

### 5.9 Fish

115 The Proposed Scheme does not entail any in stream works. However, the results of the 2020 surveys are summarised as Atlantic salmon, river lamprey and the brook lamprey are listed on Annex II of the EU Habitats Directive. There will be no direct interference with them. For this reason, they are discussed in the EIAR Chapter 12 (Biodiversity) for the Proposed Scheme, as they are not associated with any European sites within the zone of influence of the Proposed Scheme

116 In respect of salmonids – Atlantic salmon and brown trout *Salmo trutta*, the results of aquatic surveys along the River Dodder at Rathdown Park CBC1012AR001; indicated excellent salmonid habitat overall, particularly in terms of spawning. Nursery and holding habitats were of good quality and Atlantic salmon have previously been recorded in the River Dodder. Four sites were electro-fished in the Dodder River catchment as part of the 2011 WFD surveillance monitoring programme in rivers. The Mount Carmel Hospital sampling site located approximately 1.2km downstream of the Proposed Scheme recorded a total of five fish species; brown trout was the most abundant species, followed by three-spined stickleback *Gasterosteus aculeatus*, stone loach *Barbatula barbatula*, eels *Anguilla anguilla* and minnow *Phoxinus phoxinus*. Atlantic salmon were recorded at the Beaver Row sampling site approximately 4.5km downstream of the Proposed Scheme (Kelly *et al.,* 2011 ). Inland Fisheries Ireland surveyed nine sites along the course of the River Dodder in September 2018. Five fish species were recorded with brown trout the most abundant. Other species recorded comprise; stone loach, three-spined stickleback, minnow and European eel (Matson *et al.,* 2019 ).

117 The results of the aquatic surveys along the Owenadoher River at Rathfarnham Mill CBC1012AR002 indicated good salmonid habitat, although spawning and holding habitat was superior upstream at sites CBC1012AR004 and CBC1012AR003. Nursery was good overall and brown trout were evidently plentiful.

118 In respect of Lamprey (brook lamprey and river lamprey), survey site CBC1012AR001 indicated that lamprey habitat was limited to spawning substrata, with no suitable silt accumulations for ammocoetes present. While the three other survey sites on the Owenadoher River offered some good physical suitability for lamprey spawning, the swift flows and general eroding / spate nature precluded fine sediment deposition and larval habitat was largely absent (Triturus Environmental Ltd, 2020, Appendix VI ). Lamprey are not considered further in this NIS and the European sites for which they are a QI species including the River Boyne and River Blackwater SAC and the River Barrow and River Nore SAC are both a considerable distance away in different catchments with no hydrological connectivity with the Proposed Scheme.

[17] *Major importance site 401+ geese; high importance site 51-400 geese; and, moderate importance site 1-50 geese as defined by Benson's study in 2009.* - Benson (2009). *Use of Inland Feeding Sites by Light-bellied Brent Geese in Dublin 2008-2009: A New Conservation Concern?* Irish Birds 8: 563-570.

119 In respect of European eel noted that the four sampling sites on the River Dodder and Owenadoher River offered 'Moderate' suitability overall. The river is likely to support European eel as it offers greater frequency of instream refugia, better prey resources, greater proportion of deeper glide / pools etc. Eel are not considered further in this NIS.

### 5.10 Invertebrates

120 White-clawed crayfish were not recorded during the aquatic surveys conducted on the River Dodder (Triturus Environmental Ltd., 2020). The desk study (see Appendix VI in Volume 4 of this EIAR) did not return records for white-clawed crayfish within the footprint of the Proposed Scheme. As such, white-clawed crayfish are not considered further in the assessment and the nearest European site designated for white-clawed crayfish is the River Barrow and River Nore SAC, which is located approximately 51km south-west of the Proposed Scheme in the River Barrow catchment, River Nore catchment and River Ballyteigue-Bannow catchment.

121 The desk study (see Appendix IV) did not return records for marsh fritillary *Euphydryas aurinia* within the footprint of the Proposed Scheme. Desk study records in the wider area were largely historical (pre-1980s). Recent records for marsh fritillary were identified 3.8km south of the Proposed Scheme at Killakee Rathfarnham (NBDC Online Database 2022). As such, marsh fritillary are not considered further in this NIS.

### 5.11 Hydrology

122 The Proposed Scheme crosses a total of three of watercourses: the Grand Canal, and the River Dodder twice. The Proposed Scheme is also hydrologically connected to Dublin Bay via the River Dodder (Dodder_040 and _050), Owenadoher River (Owenadoher _010), Grand Canal and Liffey Estuary Upper and Lower, as well as Ringsend WwTP including London Bridge pumping station.

123 The Proposed Scheme lies within the Dodder_SC_010 WFD subcatchment. The River Dodder flows in a north easterly direction through south Co. Dublin, discharging to the River Liffey at Grand Canal Dock in Dublin city (Matson *et al*., 2019). The WFD sub-catchment Dodder_SC_010 was assigned an Ecological status of 'Good' for the period 2016-2021 in the upper reaches and deemed 'Not at Risk' of failing to meet the WFD objectives. At Dodder Valley Park the River Dodder [Dodder_40] was assigned an ecological status of 'Moderate' for the period 2016-2021and deemed to be 'At Risk' of failing to meet its WFD objectives (EPA, 2023). At Bushy Park the River Dodder [Dodder_50] was assigned an ecological status of 'Moderate' for the period 2016-2021 and deemed to be 'At Risk' of failing to meet its WFD objectives (EPA, 2023).

124 Terenure College Stream [Dodder_50], which discharges to the River Dodder at Bushy Park, was assigned an ecological fish status of 'Moderate' for the period 2016-2021and deemed to be 'At Risk' of failing to meet its WFD objectives (EPA, 2023).

125 The Owenadoher River (which is not monitored for fish or invertebrate potential), discharges to the River Dodder at Rathfarnham Mill, was assigned an Ecological fish and invertebrate and Phytobenthos status of 'Moderate' for the period 2016-2021. while the Owenadoher River risk assessment is under review in terms of achieving its WFD objectives (EPA, 2023).

126 The Grand Canal runs from Dublin port on a westerly course via Tullamore to join the River Shannon near Banagher. Due to its nature, it is classed as an artificial water body. The Grand Canal achieved 'Good Ecological Potential' (GEP) in the 2016-2021 period and is deemed not to be at risk of meetings its WFD objectives (EPA,2023).

Details on the water quality of each watercourse, as sourced from the Environmental Protection Agency (EPA), and the distances from the proposed crossing point to downstream waterbodies are also provided in Table 7.

***Table 7: Water quality of watercourses/waterbodies in the vicinity of the Proposed Scheme***

| Watercourse | Location in relation to the Proposed Scheme | EPA Q-Values (Monitoring Station) and Water Framework Directive Water Quality Status/Risk Score | Name of and Distance to Downstream Waterbodies along with their associated Water Quality |
|---|---|---|---|
| **River Dodder (Dodder_040)** | Edge of Red Line Boundary and Hydrological Connectivity at Tallaght Templeogue and Spawell Link Road adjacent to Construction Compound TR1; Located approximately 80m north-west of Construction Compound TR6.<br><br>Proximal to Austen Clarke Bridge. | Q Value Dodder- Templeogue Bridge, 3 -Poor<br>Austen Clarke Bridge 3 -poor<br><br>WFD Status 2016-2021 at both locations 'Moderate'<br><br>WFD waterbodies risk - 'At risk' at both locations | The main channel of the River Dodder flows parallel to part of the scheme until reaches the Liffey Estuary Lower transitional waterbody (classified as "*Unpolluted*") at Grand Canal Dock, which ultimately drains to Dublin Bay coastal waterbody (classified as "*Unpolluted*"). |
| **River Dodder (Dodder 050)** | One existing crossing point on Rathfarnham Road at Pearse Bridge. | Q-Value– 2-3 Poor<br>Dodder- Dodder Road d/s Weir)<br>Q3-4<br><br>WFD status 2016-2021 "– Moderate<br><br>"*WFD waterbodies risk - 'at risk'* | It flows for *a*pproximately 7.7km from the existing crossing point at Rathfarnham Road until it reaches the Liffey Estuary Lower transitional waterbody (classified as "*Unpolluted*") at Grand Canal Dock, which ultimately drains to Dublin Bay coastal waterbody (classified as "*Unpolluted*"). |
| **Owenadoher River (Owenadoher _010)** | Not intersected by the Proposed Scheme, but hydrologically connected to the Proposed Scheme via the surface water system. | Q-Value Score – 3-4 (Bridge u/s Dodder River confluence)<br><br>WFD status 2016-2021 " *Moderate*"<br>WFD waterbodies risk – *'Under review"* | It is not intersected by the Proposed scheme It flows in a northerly direction until it reaches the River Dodder. The River Dodder flows into the Liffey Estuary Lower transitional waterbody (classified as "*Unpolluted*") at Grand Canal Dock, which ultimately drains to Dublin Bay coastal waterbody (classified as "*Unpolluted*"). |
| **Grand Canal** (Grand Canal Main Line (Liffey and Dublin Bay) | One existing crossing point on the Rathmines Road Lower/Richmond Street South (R114) in Rathmines. | Q-Value Score not applicable<br><br>WFD status 2016-2021 "*Good Ecological Potential*"<br><br>*WFD waterbodies risk - 'Not at risk'* | It flows for approximately 0.6km from the existing crossing point at Rathmines until it reaches the Liffey Estuary Lower transitional waterbody (classified as "*Unpolluted*") at Grand Canal Dock, which ultimately drains to Dublin Bay coastal waterbody (classified as "*Unpolluted*"). |
| **Liffey Estuary Upper** | Not intersected by the Proposed Scheme but may have hydrological connectivity from stormwater drainage. | Q-Value Score not applicable<br><br>WFD status 2016-2021 " *Good,"* WFD waterbodies risk – *'under review'* | It flows into the Liffey Estuary Lower transitional waterbody (classified as "Unpolluted") at Grand Canal Dock, which ultimately drains to Dublin Bay coastal waterbody (classified as "Unpolluted"). |
| **Liffey Estuary Lower** | Hydrologically connected to the Proposed Scheme via the Liffey Estuary Lower and the outfall at Grand Canal Dock and River Dodder. | Q-Value Score not applicable<br><br>WFD status 2016-2021 " *Moderate"*<br><br>WFD waterbodies risk – *'At risk'* | The Liffey Estuary Lower transitional waterbody (classified as "*Unpolluted*") at Grand Canal Dock, which ultimately drains to Dublin Bay coastal waterbody (classified as "*Unpolluted*"). |
| **Dublin Bay** | Hydrologically connected to the Proposed Scheme via the Grand Canal, River Dodder and Liffey Estuary Lower. | Q-Value Score not applicable<br><br>WFD status 2016-2021 " *Good "*<br><br>WFD waterbodies risk – *'Not At risk'* | The Dublin Bay coastal waterbody is classified as "Unpolluted". |

### 5.12 Hydrogeology

127 The Geological Survey of Ireland (GSI) data indicates that underlying aquifer is a Locally Important Aquifer-Bedrock which is Moderately Productive only in Local Zones, and that the bedrock formation 1:500k underlying the Proposed Scheme is "*Dark-grey argillaceous & cherty limestone and shale (Calp)*".

128 The Proposed Scheme overlies one ground waterbody, namely the Dublin ground waterbody. Environmental data sourced from the EPA for this ground waterbody is presented below:

*Dublin Groundwater Body*

- The groundwater body it is ranked as being of "*Good*" Ground Waterbody WFD Status (2016-2021) and "*not at risk*" of failing the WFD groundwater quality objectives for the majority of its area; and,
- The aquifers located within this ground waterbody and where the Proposed Scheme transverses are classified as "*locally important aquifer - moderately productive only in local zones*".

129 The vulnerability of the Dublin ground waterbody to human activities largely ranges from "Rock at or Near *Surface*", "*Extreme*", "*High*", "*Moderate*" to "*Low*" within the footprint of the Proposed Scheme.

### 5.13 Soils & Geology

130 The 1:100,000 GSI bedrock geology map of the area indicates that the underlying bedrock along the Proposed Scheme is predominantly underlain by Carboniferous Limestones. The majority of the Dublin City area was a deep marine basin known as the Dublin Basin where these sedimentary rocks were deposited.

131 To the south of the region, stretching from Dún Laoghaire on the coast in a south to south-west direction and located beneath much of the Dublin and Wicklow mountains, are the older Caledonian granites known as the Leinster Granite. This is a large intrusion of igneous rock which occurred during the Devonian Period mountain building event known as the Caledonian Orogeny.

132 Additionally, there are areas of made ground (Urban). The majority of the soils expected to be encountered within the study area are made ground comprising varying forms of hard standing materials including road pavements and footpaths. However, there are topsoil and other soils present within the study area.

## 6 Potential Impacts, Zone of Influence and Identifying European Sites at Risk of Effects

133 Based on the baseline and receiving ecological environment and the nature and characteristics of the Proposed Scheme the following potential impacts have been identified:

- Habitat loss and fragmentation;
- Habitat degradation / effects on QI / SCI species as a result of hydrological impacts;
- Habitat degradation as a result of hydrogeological impacts;
- Habitat degradation as a result of introducing / spreading non-native invasive species;
- Habitat degradation as a result of air quality impacts; and,
- Disturbance and displacement impacts.

### 6.1 Habitat loss and fragmentation

134 The Proposed Scheme does not overlap with any European sites, and the nearest European site, with a hydrological connection to the Proposed Scheme includes South Dublin Bay and River Tolka Estuary SPA and North Dublin Bay SAC, located approximately 3.2km from the Proposed Scheme. Therefore, there is no potential for direct habitat loss and fragmentation to occur. Habitat loss may occur indirectly as a consequence of habitat degradation arising from a reduction in water quality and / or a change to the hydrological regime, as described in the section 6.2 below.

135 Special Conservation Interest (SCI) species for which SPAs in the vicinity of the Proposed Scheme have been designated are known to utilise *ex-situ* feeding sites in the Dublin area (i.e., Malahide Estuary SPA, Baldoyle

Bay SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, and potentially The Murrough SPA). While there is one documented wintering bird site at the western end of the Proposed Scheme, namely Tymon Park, a major site (Scott Cawley Ltd., 2017), that is mapped as occupying a corner of Tymon Park and adjacent open ground associated with the Spawell complex, no habitat loss will occur as there is no landtake required along the existing N81 Tallaght to Templeogue Road at this section. As the Proposed Scheme will not result in the loss of sites suitable to support breeding gull and wintering bird species. Therefore, there is no potential for impacts on SCI species associated with SPAs to occur as a result of habitat loss / fragmentation and there is no potential for in combination effects to occur.

136 A number of potential inland feeding sites within the footprint of the Proposed Scheme were surveyed to inform this assessment, these were located at land in close proximity to Bushy Park, namely CBC1012WB001 which overlaps with proposed Construction Compound TR3 along the R112 Springfield Avenue, CBC1012WB002 which is in amenity grassland to the immediate west of the Rathfarnham Road Dodder River Crossing and CBC1012WB003 which is located in Bushy Park alongside the Templeogue Road.

137 The Proposed Scheme will result in the loss of sites suitable to support breeding gull and wintering bird species at CBC1012WB001 for the duration of the Construction Phase. Therefore, there is potential for impacts on SCI species associated with SPAs to occur as a result of habitat loss / fragmentation. There is also potential for in combination effects to occur.

138 In respect of otter, there were no otter breeding or resting places, holt or couch sites present within the Proposed Scheme boundary. Therefore, there will not be any loss of holt or couch sites as a result of construction works.

139 There will be no loss of Annex I habitats and / or habitat supporting Annex II species, for which European sites are designated for within the ZoI of the Proposed Scheme. The Proposed Scheme will not result in any direct loss or fragmentation of habitat by virtue of the location of the Proposed Scheme and its construction. In terms of otter, while the Proposed Scheme does cross the Dodder River and the Grand Canal, it does so at existing transport bridges and as such will not be subject to any instream works nor alteration to the territory currently occupied by otter. This includes Construction Compound TR1, which is located at the intersection of Wellington Land/ Spawell crossing of the R137 Templeogue Road, and TR3, which is separated from the River Dodder by existing green space and R112 Springfield Avenue, and TR6, which is separated from the River Dodder by existing bands of mature trees and disturbed ground in Dodder Valley Park.

The ZoI of this impact is potentially any habitat area within or traversed by the proposed development boundary that lies either within / immediately adjacent to Dublin Bay or those potential *ex-situ* sites supporting SCI listed bird species of Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA and The Murrough SPA.

### 6.2 Habitat degradation / effects on QI / SCI species as a result of hydrological impacts

140 The Proposed Scheme has the potential to result in habitat degradation or effects on QI or SCI species as a consequence of hydrological impacts during both the construction and operation phase. The release of contaminated surface water runoff, an accidental spillage or pollution event into any surface water features during construction, or operation, has the potential to affect water quality in the receiving aquatic environment, which in turn can affect any species which utilise this aquatic environment. Otter use riparian habitats for foraging and commuting purposes and therefore would be potentially at risk of hydrological impacts. Wicklow Mountains SAC, which is located approximately 6.1km south of the Proposed Scheme (from the Liffey Estuary Lower), is the closest European site for which otter is the QI species. Typically, otter territories are within the range of 7.5km for females and up to 21km for males (Ó'Neill *et al*., 2009). The Proposed Scheme only interacts with the following watercourses: Dodder_040, Dodder_050 and Grand

Canal, although Owenadoher_010 is within approximately 100metres of the Proposed Scheme. Whilst these watercourses lie within the typical territorial ranges of otters, it is the River Dodder which provides the key hydrological pathway between the Wicklow Mountains SAC and Dublin City. In addition, the Wicklow Mountains SAC lies within the Dodder_SC_010 subcatchment and the Proposed Scheme lies within the Dodder SC_090 subcatchment.

141 The Proposed Scheme is hydrologically connected to Dublin Bay via the River Dodder (Dodder _040 and 050), Owenadoher River (Owenadoher _010), Grand Canal and Liffey Estuary Upper and Lower as well as a network of interconnecting and established surface or combined sewer / surface water pipes that drain via London Bridge pumping Station to Ringsend WwTP before ultimately discharge into Dublin Bay. The release of contaminated surface water runoff and / or an accidental spillage or pollution event into any surface water features during construction, or operation, has the potential to affect water quality in the receiving aquatic environment. It should be noted that a highly substantial event / events would be required to generate such quantities, which is not deemed likely.

142 Such a potential pollution event may include: the release of sediment into receiving waters and the subsequent increase in mobilised suspended solids; and the accidental spillage and/or leaks of contaminants into receiving waters. This occurrence could happen at any time during construction but could potentially be exacerbated by the removal of vegetation. In the absence of mitigation, the associated effects of a reduction of surface water quality could potentially extend for a considerable distance downstream of the discharge point or location of the accidental pollution event. Such an occurrence, of a sufficient magnitude, either alone or in combination with other pressures on water quality, could undermine the conservation objectives of the European sites downstream in Dublin Bay (i.e., North Dublin Bay SAC, South Dublin Bay SAC, Rockabill to Dalkey Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA and Dalkey Islands SPA).

143 The QI habitats for which Howth Head SAC is designated (i.e., vegetated sea cliffs [1230] and European dry heaths [4030]) lie above the high-water mark. Pollution is not regarded to be a threat or pressure which could potentially impact these SAC sites (NPWS 2016) and is not regarded to be a significant threat / pressure to this habitat at a national level (Barron *et al.,* 2011). Therefore, the QI habitats of Howth Head SAC will be unaffected by a degradation in the surface water quality of the coastal waters of Dublin Bay and significant effects in that regard can be excluded.

144 The Proposed Scheme is hydrologically connected to the River Dodder, via the drainage network as well as crossing it directly at two locations The R137 Tallaght Templeogue road intersection with Spawell and further downstream at Pearse Bridge along the Rathfarnham Road. The source of the River Dodder is in the Wicklow Mountains SAC which is located approximately 6.2km south (upstream). The proposed Scheme is also hydrologically connected to the Owenadoher River and Grand Canal and it crosses over the Grand Canal. Otter territories are within the range of 7.5km for females and 21km for males (Ó'Neill *et al*., 2009). Therefore, there is potential for otter associated with the Wicklow Mountains SAC to move downstream and to come within the ZoI of the Proposed Scheme. The remaining QIs for the SAC, namely Oligotrophic water containing very few minerals of sandy plains (Littorelletalia); Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoteo-Nanojuncetea; Natural dystrophic lakes and ponds; Northern Atlantic wet heaths with *Erica tetralix*; European dry heaths; Alpine and Boreal heaths; Calaminarian grasslands of the Violetalia calaminaria; Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe)*; Blanket Bogs (*if active bog); Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani); Calcareous rocky slopes with chasmophytic vegetation; and Old sessile oak Woods with *Ilex* and *Blechnum* in the British Isles do not occur within the ZoI of the Proposed Scheme. These habitats are located upstream of the Proposed Scheme and will not be subject to any hydrological impacts as a result of the Proposed Scheme.

145 A reduction in water quality as a result of an accidental pollution event (either alone or in combination with other pressures on water quality) however could result in the degradation of the local aquatic environment, which could in turn negatively affect the otter population through direct contact with pollutants or a decline in fish prey.

146 In a potential worst case scenario, the release of contaminated surface water runoff and / or an accidental spillage or pollution event into any surface water features during construction, or operation, also has the potential to affect SCI bird species and QI mammal species that commute, forage and loaf in Dublin Bay i.e. birds associated with Skerries Islands SPA, Rockabill SPA and Lambay Island SPA, Ireland's Eye SPA, North Dublin Bay SPA, South Dublin Bay and River Tolka Estuary SPA, Baldoyle Bay SPA, Malahide Estuary SPA, Rogerstown SPA, Dalkey Islands SPA, Murrough SPA, and marine mammals associated with Rockabill to Dalkey Island SAC and Lambay Island SAC. This reduction in water quality (either alone or in combination with other pressures on water quality) could result in the degradation of sensitive habitats present downstream, which in turn could negatively affect the SCI bird species that rely upon these habitats as foraging and/or roosting habitat. It could also negatively affect the quantity and quality of prey available to SCI and QI populations. In a worst-case scenario these potential impacts could occur to such a degree that the conservation objectives of the Skerries Islands SPA, Rockabill SPA and Lambay Island SPA, Ireland's Eye SPA, North Dublin Bay SPA, South Dublin Bay and River Tolka Estuary SPA, Baldoyle Bay SPA, Malahide Estuary SPA, Rogerstown SPA, Dalkey Islands SPA, Murrough SPA, Rockabill to Dalkey Island SAC and Lambay Island SAC are undermined.

147 As the Proposed Scheme has the potential to result in habitat degradation and effects on the Qualifying Interest mammal (otter) and marine mammals / Special Conservation Interest species of European sites as the result of hydrological impacts, there is the potential for in combination effects to occur.

The ZoI of this impact is any wetland, coastal or marine habitat downstream of any watercourse crossings or drainage outfalls, and any aquatic / marine species therein and includes Wicklow Mountains SAC, North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, Dalkey Islands SPA and The Murrough SPA.

### 6.3 Habitat degradation as a result of hydrogeological Impacts

148 Groundwater levels in groundwater dependant habitats may be impacted by the removal of a proportion of an aquifer or dewatering activities associated with excavations which can lead to a temporary change in groundwater levels and flow within the aquifer. Likewise, the mobilisation of contaminants into the aquifer either through accidental spillage or disturbance of contaminated ground during excavation may reduce the quality of the groundwater within the aquifer, also resulting in the degradation of groundwater dependent terrestrial ecosystem and any species that they may support.

149 The potential for hydrogeological impacts are highly variable depending on the nature of the proposed works at specific locations and the receiving environment ground conditions. The unmitigated hydrogeological ZoI of the Proposed Scheme is not considered to extend to any groundwater dependent terrestrial ecosystems linked to European sites. This ZoI follows the professional judgement of the hydrogeology specialists.

150 As the Proposed Scheme does not have the potential to result in habitat degradation of the Qualifying Interest species / Special Conservation Interest supporting habitat of a European site as the result of hydrogeological impacts there is no potential for in combination effects to occur in that regard.

### 6.4 Habitat degradation as a result of introducing / spreading non-native invasive species

151 Ten areas of Japanese knotweed, Himalayan balsam and three-cornered garlic, species listed on the Third Schedule of the (Birds and Natural Habitats) Regulations 2011 (as amended), are present in close proximity to the Proposed Scheme (See Section 4.6.1). In the absence of mitigation, there is potential for these species to spread or be introduced, during construction and / or routine maintenance / management works, to terrestrial and habitat areas in European sites downstream in Dublin Bay (i.e., North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). These in turn may result in the degradation of the existing habitats, in particular those habitats not permanently

or regularly inundated by seawater, potentially outcompeting other native species and affecting species composition and physical structure of the habitat. Therefore, it is possible that the spread / introduction of non-native invasive species could undermine the conservation objectives of these European sites.

152 It is not considered possible that the listed non-native invasive species could spread to European sites that are located a considerable distance from the outfall locations of the Owenadoher River, River Dodder Grand Canal, and Liffey Estuary Upper and Lower and separated by a large marine waterbody (i.e. Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, Ireland's Eye SPA, The Murrough SPA and Dalkey Islands SPA).

153 As the Proposed Scheme has the potential to result in habitat degradation of the Qualifying / Special Conservation Interest species of European sites as the result of the spread of non-native invasive species, there is the potential for in combination effects to occur in association with other activities / plans / projects.

The ZoI of this impact is potentially any habitats crossed by, immediately adjacent to, or downstream of the Proposed Scheme or along any of the proposed construction routes are at risk from contaminated soil/material and includes European sites associated with Dublin Bay i.e. North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA.

### 6.5 Habitat degradation as a result of air quality impacts

154 A reduction in air quality within the immediate vicinity of the construction works may occur as a consequence of dust deposition associated with these construction activities. This may lead to a reduction in photosynthesis due to smothering from dust on the plants and chemical changes such as acidity to soils. Furthermore, emissions from car exhausts, and the deposition of particulate matter and heavy metals produced by engine, brake and tyre wear, can contribute to increased deposition of pollutants such as oxides of nitrogen ($NO_x$, $NO_2$), volatile organic compounds (VOCs), particulate matter (PM), heavy metals (HM) and ammonia ($NH_4$) in the vicinity of a road carriageway. This can affect the ecosystems and vegetation present, influencing plant growth rates and species composition, diversity, and abundance.

155 The unmitigated ZoI for air quality effects arising from the Proposed Scheme has the potential to extend 50m from the Proposed Scheme boundary, and 500m from Construction Compounds during the Construction Phase, and up to 200m from the Proposed Scheme boundary during the Operational Phase. There are no European sites present within these distances.

156 As such, the Proposed Scheme does not have the potential to result in habitat degradation of the Qualifying / Special Conservation Interest species / habitats of any European sites, as a result of air quality impacts, during either the Construction or Operational Phase of the Proposed Scheme. There is, therefore, no potential for in combination effects to occur in that regard.

### 6.6 Disturbance and displacement impacts

157 A temporary and / or permanent increase in noise, vibration and / or human activity levels during the Construction Phase of the Proposed Scheme could result in the disturbance to and / or displacement of fauna species present within the vicinity of the Proposed Scheme. For mammal species such as otter, disturbance effects would not be expected to extend beyond 150m[18]. For wintering birds, disturbance

[18] This is consistent with Transport Infrastructure Ireland (TII) guidance (Guidelines for the Treatment of Otters prior to the Construction of National Road Schemes (2006) and Guidelines for the Treatment of Badgers prior to the Construction of National Road Schemes (2005)) documents. This is a precautionary distance, and likely to be moderated by the screening

effects would not be expected to extend beyond a distance of approximately 300m[19], as noise levels associated with general construction activities would attenuate to close to background levels at that distance. There are no European sites within the disturbance ZoI of the Proposed Scheme.

158 There are a number of coastal SPAs located in relatively close proximity to the Proposed Scheme which are designated for SCI species that are known to forage and / or roost at inland sites, such as amenity grassland playing pitches i.e. Malahide Estuary SPA, Baldoyle Bay SPA, South Dublin Bay and River Tolka Estuary SPA, North Bull Island SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA and Lambay Island SPA, as well as The Murrough SPA (a distant site outside the typical 20km range but nonetheless supporting light-bellied Brent geese and a number of other SCI species that are recorded from Dublin Bay). Suitable inland foraging / roosting sites, which these bird species utilise, are located within the potential ZoI of the Proposed Scheme (See Section 4.3). Therefore, there is potential for the Proposed Scheme to result in disturbance / displacement impacts on SCI populations associated with European sites.

159 Regarding the raptor species, for which Wicklow Mountains SPA are designated (e.g., merlin Falco *columbarius* and peregrine *Falco peregrinus*), a study by Ruddock and Whitfield[20], which included a review of previous studies in this area, offers no definitive distance after which disturbance to merlin is not significant but indicates that an upper limit of 300-500m may be sufficient in the case of breeding or nesting merlin. Likewise, a distance of 500-750m is likely to be sufficient for breeding peregrines. Most Peregrine prey is taken within 2km of the eyrie and few birds are taken beyond 6km (Hardey *et al.,* 2013)[21]. Adopting a precautionary approach, based on the available data regarding disturbance distances for merlin and peregrine (Lusby *et al*., 2017[22] ; Hardey *et al*., 2013), it can be concluded that disturbance to these bird species would be most likely to occur within 1km (i.e. the disturbance ZoI is 1km). There are no European sites within the disturbance ZoI; the nearest European site to the Proposed Scheme designated for merlin and peregrine is the Wicklow Mountains SPA, located 4.3km away. There are also no habitat areas within the disturbance ZoI of the Proposed Scheme that support populations of the SCI species for which Wicklow Mountains SPA is designated. Considering the above, there is no potential for the Proposed Scheme to result in disturbance / displacement impacts on the SCI species for which Wicklow Mountains SPA is designated. [23]

effect provided by surrounding vegetation and buildings, with the actual ZoI of construction related disturbance likely to be much less in reality.

[19] Current understanding of construction related noise disturbance to wintering waterbirds is based on the research presented in Cutts *et al*. (2009) and Wright *et al*. (2010). In terms of construction noise, levels below 50dB would not be expected to result in any response from foraging or roosting birds. Noise levels between 50dB and 70dB would provoke a moderate effect / level of response from birds, i.e. birds becoming alert and some behavioural changes (e.g. reduced feeding activity), but birds would be expected to habituate to noise levels within this range. Noise levels above 70dB would likely result in birds moving out of the affected zone, or leaving the site altogether. At approximately 300m, typical noise levels associated with construction activity (BS 5228) are generally below 60dB or, in most cases, are approaching the 50dB threshold.

[20] Ruddock, M. & Whitfield, D.P. (2007). *A Review of Disturbance Distances in Selected Bird Species*. A report from Natural Research Projects) Ltd. to Scottish Natural Heritage. Available at: https://www.nature.scot/sites/default/files/2018-05/A%20Review%20of%20Disturbance%20Distances%20in%20Selected%20Bird%20Species%20-%20Natural%20Research%20Ltd%20-%202007.pdf [Accessed 24/05/2022]

[21] Hardey, J., Crick, H., Wernham, C., Riley, H., Etheridge, B. & Thompson, D. (2013) Raptors: A Field Guide for Surveys and Monitoring. Scottish Natural Heritage.

[22] Lusby, J., Corkery, I., McGuiness, S., Fernández-Bellon, D., Toal, L., Norriss, D., Breen, D., O'Donaill, A., Clarke, D., Irwin, S., Quinn, J.L. and O'Halloran, J. (2017) Breeding ecology and habitat selection of Merlin Falco columbarius in forested landscapes. Bird Study.

160 Although no signs of kingfisher were recorded during field surveys of the Proposed Scheme, kingfisher, an Annex I bird species, is known to be present in the wider study area, in particular, along the River Dodder and the Grand Canal. Any kingfisher populations which are present in the vicinity of the Proposed Scheme are not considered to be associated with the SCI populations of any European site. Kingfisher territories can extend over approximately 3-5km of a river catchment[24]. The nearest SPA for which kingfisher has been designated is the River Boyne and Blackwater SPA, which is located approximately 38.7km away. Therefore, kingfisher present in the vicinity of the Proposed Scheme are not associated with an SPA population.

161 Signs of otter, an Annex II and IV mammal species, were recorded during multidisciplinary field surveys of the Proposed Scheme, on the River Dodder and the Owenadoher River (where a confirmed holt was identified). Further surveys at likely watercourses supporting otter activity (based on desktop research) and assessment of watercourse condition (culverted, supporting habitat, feed potential) returned a number of records for otter activity. The nearest SAC to the Proposed Scheme for which otter has been designated is Wicklow Mountains SAC which is located approximately 6.2km upstream, within the same WFD sub-catchment.

162 Research carried out by Ó'Néill *et al,.* (2009) on ranging behaviours of otter on river systems in Ireland found that female otter ranges averaged 7.5km while male otter home ranges varied up to 21km. The Proposed Scheme crosses over the River Dodder at two locations and the Grand Canal at one location on existing road bridges, and interacts with the following watercourses via the surface water drainage network: Owenadoher River, River Dodder, Grand Canal, and Liffey Estuary Upper and Lower. Whilst these watercourses lie within the typical territorial ranges of otters, only the River Dodder and the Owenadoher River as a tributary) shares a hydrological connection to the Wicklow Mountains SAC. The Templeogue section of the Proposed Scheme also lies within the same subcatchment as Wicklow Mountains SAC (Dodder_SC_010 subcatchment). Notwithstanding the limited interaction between Construction Compound TR1 and the River Dodder, and the Proposed Scheme's proximity to the Owenadoher River at Butterfield Avenue and potential noise disturbance associated with the construction of the Proposed Scheme, it cannot be excluded that the otter population in the vicinity of the Templeogue section of Proposed Scheme is associated with the Wicklow Mountains SAC population. Therefore, disturbance and displacement impacts on the QI otter population for Wicklow Mountains SAC, as a result of the Proposed Scheme, cannot be excluded.

163 However, no significant impacts, e.g., habitat severance or barrier effects, on otter are predicted as a result of disturbance / displacement from the Proposed Scheme for the following reasons:

- Notwithstanding the fact that the Proposed Scheme crosses two watercourses (the River Dodder and Grand Canal) for which otter are known to inhabit, the adjacent Owenadoher River flows into the Dodder and is hydrologically connected to the Proposed Scheme via surface water drainage network. However, the corridor is a pre-existing national road into Dublin City. Otter are known to commute and reside nearby these areas and as such are likely to be tolerant to traffic noise and other human related noise and disturbance.
- The nature of the works proposed in the vicinity of the Dodder crossing and Grand Canal. The main works required in these areas include new road markings and signage, traffic signal installation, carriageway and pavement resurfacing, kerb build outs and traffic island construction/removal, landscaping and utility diversions, all of which should not impede otter along the aquatic corridors running under the existing road bridges.

164 However, owing to the proximity of the holt, located within approximately 140metres of the Proposed Scheme, it is within the potential zone of influence in respect of potential significant effects to maternal

[24] RSPB. *Kingfisher breeding, feeding and territory webpage.* Available from: https://www.rspb.org.uk/birds-and-wildlife/wildlife-guides/bird-a-z/kingfisher/breeding-feeding-territory/

holt. Thus, likely significant impacts cannot be ruled out as a result of the construction of the Proposed Scheme if undertaken during the breeding season.

165 Although marine mammals associated with European sites may commute and forage within the Liffey Estuary (to which both the Dodder River and the Grand Canal discharge downstream of the Proposed Scheme) and Dublin Bay, it is not considered to be likely that there will be any impacts on these species as a result of the Proposed Scheme as it terminates inland in a highly urbanised environment at Lord Edward Street, which is upstream of Dublin Bay, in a highly urbanised environment. The scale of upstream works proposed are considered to be minor. that there will be no disturbance / displacement impacts on marine mammals as a result of the Proposed Scheme.

166 As the Proposed Scheme has the potential to result in the disturbance / displacement of the Qualifying / Special Conservation Interest species of any European site, there is the potential for in combination effects to occur in association with other activities / plans / projects.

The ZoI for disturbance associated with general construction activities for wintering birds, disturbance effects would not be expected to extend beyond a distance of approximately 300m. There are no European sites within this ZoI. However, one potential *ex-situ* feeding site, supporting SCI listed bird species of the following European sites, is known to be present within this ZoI; Malahide Estuary SPA, Baldoyle Bay SPA, South Dublin Bay and River Tolka Estuary SPA, North Bull Island SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA and The Murrough SPA or QI mammal species for which Wicklow Mountains SAC is designated.

### 6.7 Summary

167 The potential impacts associated with the Proposed Scheme have the potential to affect the receiving environment and, as a result, the conservation objectives supporting the Qualifying Interest / Special Conservation Interests of the following European sites: North Dublin Bay SAC; South Dublin Bay SAC; Rockabill to Dalkey Island SAC; Lambay Island SAC; Wicklow Mountains SAC, Howth Head Coast SPA; Dalkey Islands SPA; Rockabill SPA; North Bull Island SPA; South Dublin Bay and River Tolka Estuary SPA; Ireland's Eye SPA; Malahide Estuary SPA; Baldoyle Bay SPA; Rogerstown Estuary SPA; Skerries Islands SPA; Lambay Island SPA; and The Murrough SPA.

168 The potential impacts of the Proposed Scheme on the receiving environment, their zone of influence, and the European sites at risk of likely significant effects are summarised in Table 8.

***Table 8: Summary of the potential impacts of the Proposed Scheme on the receiving environment, their potential zone of influence, and the European sites within the zone of influence***

| Potential Direct, Indirect In Combination Effects and the ZoI of the Potential Effects | Are there any European sites within the ZoI of the Proposed Scheme? |
|---|---|
| Habitat loss<br>No European sites are at risk of direct habitat loss impacts<br>There is potential for loss of *ex-situ* inland feeding sites used by SCI wintering bird species. | Yes<br>There are European sites at risk of *ex-situ* habitat losses:<br>Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA and The Murrough SPA |
| Habitat degradation / effects on QI / SCI species as a result of hydrological impacts<br>Habitats and species downstream of the Proposed Scheme and the associated surface water drainage | Yes.<br>There are European sites at risk of hydrological effects associated with the Proposed Scheme, namely: |

| Potential Direct, Indirect In Combination Effects and the ZoI of the Potential Effects | Are there any European sites within the ZoI of the Proposed Scheme? |
|---|---|
| discharge points, and downstream of offsite wastewater treatment plants. | Wicklow Mountains SAC, North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, Dalkey Islands SPA and The Murrough SPA. |
| Habitat degradation as a result of hydrogeological impacts<br>Groundwater-dependant habitats, and the species those habitats support, in the local area that lie downgradient of the Proposed Scheme. | No.<br>There are no European sites at risk of hydrogeological effects associated with the Proposed Scheme |
| Habitat degradation as a result of introducing / spreading non-native invasive species.<br>Habitat areas within, adjacent to, and potentially downstream of the Proposed Scheme. | Yes.<br>There are non-native invasive species present within or adjacent to the Proposed Scheme and in the surrounding area, therefore there is a risk associated with the Proposed Scheme to downstream European sites from the spread / introduction of non-native invasive species:<br>South Dublin Bay and River Tolka Estuary SPA, South Dublin Bay SAC, North Dublin Bay SAC, and North Bull Island SPA. |
| Air Quality impacts<br>Potentially up to 50m from the Proposed Scheme boundary and 500m from the Construction Compound at Construction phase, and up to 200 metres at Operation Phase. | No.<br>There are no European sites at risk of air quality effects associated with the Proposed Scheme |
| Disturbance and displacement impacts<br>Potentially up to several hundred metres from the Proposed Scheme, dependent upon the predicted levels of noise, vibration and visual disturbance associated with the Proposed Scheme, taking into account the sensitivity of the qualifying interest species to disturbance effects. | Yes.<br>There are no European sites within the potential zone of influence of disturbance effects associated with the construction or operation of the Proposed Scheme.<br>However, there are 3 of *ex-situ* inland feeding site which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme.<br>In addition, otter in the vicinity of the Dodder River and Owenadoher River in proximity to the Proposed Scheme may be associated with the QI population associated with Wicklow Mountains SAC and impacts on the QI population cannot be excluded as a result.<br>Wicklow Mountains SAC, Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA and The Murrough SPA. |

# 7 Assessment of Potential Effects on European Sites

169 This section of the NIS assesses the direct and indirect impacts of the Proposed Scheme on the European sites which fall within its zone of influence. For each of these European sites, the assessment below sets out the relevant ecological baseline information, the analysis of the potential impacts, the Qualifying Interests / Special Conservation Interests at risk of these potential impacts, in view of the sites' conservation objectives, and the mitigation measures (if required) to avoid / reduce the effects of any potential impacts.

170 European sites have been grouped in the sub-sections below where the impact pathways, European sites' sensitivities, and potential effects are identical.

171 The assessment of the Proposed Scheme in combination with any other plans or projects on European sites is presented in Section 9.

## 7.1 North Dublin Bay [000206] and South Dublin Bay SAC [000210]

### *7.1.1 Ecological Baseline Descriptions for North Dublin Bay SAC and South Dublin Bay SAC*

North Dublin Bay SAC

172 The Natura 2000 Standard Data Form (NPWS, 2020a) lists the SAC as having an excellent diversity of coastal habitats. The dune system is one of the most important systems on the east coast, one of few in Ireland that is suggested to be actively accreting. Saltmarsh habitats are well represented at the site with particularly good zonation evident. Of note, is the occurrence of Petalwort *Petallophyllum ralfsii*, a QI plant species, with its only known location away from the western seaboard being on Bull Island. Threats to the site include pollution from Dublin Port, commercial bait digging, recreational activities and water abstraction by golf clubs.

South Dublin Bay SAC

173 According to the Natura 2000 standard data form for South Dublin Bay SAC (NPWS, 2020b), the European site possesses a fine and fairly extensive example of intertidal flats, mudflats and sandflats not covered by seawater at low tide [1140]. Sediment type is predominantly sand, with muddy sands in the more sheltered areas and a typical macro-invertebrate fauna exists. The largest stand of *Zostera* on the east coast is located at Merrion Gates. The site supports internationally important numbers of wintering waterfowl, including light-bellied Brent geese which feed on Zostera. South Dublin Bay SAC also supports small areas of annual vegetation of drift lines [1210], *Salicornia* and other annuals colonising mud and sand [1310] and embryonic shifting dunes [2110]. Given Dublin Bay's proximity to a major population centre, recreational activities and disturbance on land and at sea is an existing pressure on habitats within the European site. Additional pressures and threats include reclamation of land, industrial or commercial areas e.g., Dublin Port, bait digging, marine water pollution, discharges and disposal of wastes, and accumulation of organic materials.

### *7.1.2 Qualifying Interests and Conservation Objectives of North Dublin Bay SAC & South Dublin Bay SAC*

174 The Qualifying Interests of North Dublin Bay SAC and South Dublin Bay SAC, and the overall conservation objectives, are listed in Table 9.

***Table 9: Qualifying Interests and Conservation Objectives for North Dublin Bay SAC [000206] and South Dublin Bay SAC [000210]***

| Qualifying Interest(s) | Conservation Objective(s) |
|---|---|
| **North Dublin Bay SAC [000206]**<br>1140 Mudflats and sandflats not covered by seawater at low tide | To maintain or restore the favourable conservation condition of the Annex I habitat(s) and / or the Annex II species for which the SAC has been selected. |

| Qualifying Interest(s) | Conservation Objective(s) |
|---|---|
| 1210 Annual vegetation of drift lines<br>1310 *Salicornia* and other annuals colonising mud and sand<br>1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae)<br>1395 Petalwort *Petalophyllum ralfsii*<br>1410 Mediterranean salt meadows (Juncetalia maritimi)<br>2110 Embryonic shifting dunes<br>2120 Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes)<br>2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)*<br>2190 Humid dune slacks<br><br>*S.I. No. 524/2019 – European Union Habitats (North Dublin Bay Special Area of Conservation 000206) Regulations 2019.*<br>NPWS (2013b) *Conservation Objectives: North Dublin Bay SAC 000206.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | |
| **South Dublin Bay SAC [000210]**<br>1140 Mudflats and sandflats not covered by seawater at low tide<br>1210 Annual vegetation of drift lines<br>1310 *Salicornia* and other annuals colonising mud and sand<br>2110 Embryonic shifting dunes<br><br>*S.I. No. 525/2019 – European Union Habitats (South Dublin Bay Special Area of Conservation 000210) Regulations 2019.*<br>NPWS (2013a) *Conservation Objectives: South Dublin Bay SAC 000210.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | To maintain or restore the favourable conservation condition of the Annex I habitat(s) and / or the Annex II species for which the SAC has been selected. |

175 In conjunction with considering the generic conservation objective for this SAC "To maintain or restore the favourable conservation condition of the Annex I habitat(s) and / or the Annex II species for which the SAC has been selected", the site-specific conservation objectives document for North Dublin Bay SAC and South Dublin Bay SAC also informed this assessment.

176 The site-specific conservation objectives document sets out the attributes, measures and targets that define the favourable conservation condition of the Qualifying Interests within the European site. Affecting the conservation condition of the Qualifying Interests is deemed to constitute an adverse effect on the integrity of a European site. The specific attributes and targets used to define the conservation objectives of the Qualifying Interests of North Dublin Bay SAC and South Dublin Bay SAC are presented in Section 7.1.3.3.

### *7.1.3 Examination and Analysis of Potential Direct and Indirect Impacts*

177 The direct and/or indirect impacts by which the Proposed Scheme could (in the absence of mitigation measures) potentially affect the conservation objective attributes and targets supporting the conservation condition of the qualifying interests of North Dublin Bay SAC and South Dublin Bay SAC, are:

- Habitat degradation / effects on QI species as a result of hydrological impacts; and,
- Habitat degradation as a result of introducing / spreading non-native invasive species.

#### 7.1.3.1 Habitat degradation/effects on QI species as a result of hydrological impacts

178 The release of contaminated surface water runoff and / or an accidental spillage or pollution event into any surface water features during construction, or operation, has the potential to affect water quality in the receiving aquatic environment. Such a pollution event may include: the release of sediment into receiving waters and the subsequent increase in mobilised suspended solids; and the accidental spillage and/or leaks of contaminants into receiving waters. The associated effects of a reduction of surface water quality could potentially extend for a considerable distance downstream of the location of the accidental pollution event or the discharge. The Proposed Scheme is hydrologically connected to Dublin Bay via the Owenadoher River, River Dodder, the Grand Canal as well as the Liffey Estuary Upper and Lower as well as a network of interconnecting and established surface or combined sewer/surface water pipes. Therefore, there is potential for the Proposed Scheme to result in significant effects which could have implications for the conservation objectives of North Dublin Bay SAC and South Dublin Bay SAC as a result of hydrological impacts.

#### 7.1.3.2 Habitat degradation as a result of introducing / spreading non-native invasive species

179 Ten areas of Japanese knotweed, Himalayan balsam and three-cornered garlic , species listed on the Third Schedule of the (Birds and Natural Habitats) Regulations, are present within, or in close proximity to, the Proposed Scheme, particularly along the River Dodder at Pearse Bridge in Rathfarnham During construction and / or routine maintenance / management work, this species could potentially, albeit unlikely, spread or be introduced to terrestrial habitats located within downstream European sites via surface water features. The introduction and / or spread of this non-native invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. This species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. This in turn could undermine the conservation objectives of these European sites. The Proposed Scheme is hydrologically connected to the Owenadoher River, River Dodder, the Grand Canal as well as the Liffey Estuary Upper and Lower and a network of interconnected surface drains which ultimately discharges directly to Dublin Bay. Therefore, there is potential, albeit unlikely, for the Proposed Scheme to result in significant effects which could have implications for the conservation objectives of North Dublin Bay SAC and South Dublin Bay SAC as a result of non-native invasive species spread.

#### 7.1.3.3 Summary

180 Table 10 presents a summary of the potential impacts of the Proposed Scheme on the Qualifying Interests of North Dublin Bay SAC and South Dublin Bay SAC, and how these impacts relate to affecting the sites' conservation objectives.

**Table 10:** ***Potential Impacts/ Effects on the Conservation Objectives of North Dublin Bay SAC and South Dublin Bay SAC***

| **Conservation Objectives**<br>**Attribute / Measure / Target** | **Potential Impacts Requiring Mitigation?** | **Are mitigation measures required?** | **Residual Impacts?** |
|---|---|---|---|
| **North Dublin Bay SAC** | | | |
| **Mudflats and sandflats not covered by water at low tide [1140]**<br>To maintain the favourable conservation condition of the habitat in the SAC, which is defined as follows: | | | |
| Habitat area / Hectares / The permanent habitat area is stable or increasing, subject to natural processes | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could affect the quality of the intertidal habitats and the fauna communities they support.<br><br>The introduction and / or spread of non-native invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. | Yes<br><br>The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme.<br><br>The mitigation measures described in Section 7.1.4 will prevent the introduction and / or spread of non-native invasive species to downstream European sites during construction and operation of the Proposed Scheme. | No |
| Community extent / Hectares / Maintain the extent of the *Mytilus edulis*-dominated community, subject to natural processes | | | |
| Community structure: *Mytilus edulis* density / Individuals / $m^2$ / Conserve the high quality of the *Mytilus edulis* dominated community, subject to natural processes | | | |
| Community distribution / Hectares / Conserve the following community types in a natural condition: Fine sand to sandy mud with *Pygospio elegans* and *Crangon crangon* community complex; Fine sand with *Spio martinensis* community complex | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| **Annual Vegetation of drift lines [1210]**<br>To restore the favourable conservation condition of the habitat in the SAC, which is defined as follows: | | | |
| Habitat area / Hectares / Area increasing, subject to natural processes, including erosion and succession | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either along or cumulatively with other pollution sources, could potentially affect the quality (vegetation structure and composition) and area / distribution of intertidal / coastal habitats.<br><br>The introduction and / or spread of non-native invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. | Yes<br>The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme.<br><br>The mitigation measures described in Section 7.1.4 will prevent the introduction and / or spread of non-native invasive species to downstream European sites during construction and operation of the Proposed Scheme.. | No |
| Habitat distribution / Occurrence / No decline, or change in habitat distribution, subject to natural processes | | | |
| Physical structure: functionality and sediment supply / Presence / absence of physical barriers / Maintain the natural circulation of sediment and organic matter, without any physical obstructions | | | |
| Vegetation structure: zonation / Occurrence / Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession | | | |
| Vegetation composition: typical species and sub-communities / Percentage cover at a representative number of monitoring stops / Maintain the presence of species-poor communities with typical species: sea rocket (*Cakile maritima*), sea sandwort (*Honckenya peploides*), prickly saltwort (*Salsola kali*) and oraches (*Atriplex* spp.) | | | |
| Vegetation composition: negative indicator species / Percentage cover / Negative indicator species (including non-natives) to represent less than 5% cover | | | |
| ***Salicornia* and other annuals colonising mud and sand [1310]**<br>To restore the favourable conservation condition of the habitat in the SAC, which is defined as follows: | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| Habitat area / Hectares / Area stable or increasing, subject to natural processes, including erosion and succession | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either along or cumulatively with other pollution sources, could potentially affect the quality (vegetation structure and composition) and area / distribution of intertidal / coastal habitats.<br><br>The introduction and / or spread of non-native invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. | Yes<br>The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme.<br><br>The mitigation measures described in Section 7.1.4 will prevent the introduction and / or spread of non-native invasive species to downstream European sites during construction and operation of the Proposed Scheme. | No |
| Habitat distribution / Occurrence / No decline, or change in habitat distribution, subject to natural processes | | | |
| Physical structure: sediment supply / Presence / absence of physical barriers<br>Maintain, or where necessary restore, natural circulation of sediments and organic matter, without any physical obstructions | | | |
| Physical structure: creeks and pans / Occurrence / Maintain creek and pan structure, subject to natural processes, including erosion and succession | | | |
| Physical structure: flooding regime / Hectares flooded; frequency / Maintain natural tidal regime | | | |
| Vegetation structure: zonation / Occurrence / Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession | | | |
| Vegetation structure: vegetation height / Centimetres / Maintain structural variation within sward | | | |
| Vegetation structure: vegetation cover / Percentage cover at a representative number of monitoring stops / Maintain more than 90% of area outside creeks vegetated | | | |
| Vegetation composition: typical species and subcommunities / Percentage cover / Maintain the presence of species-poor communities listed in SMP (McCorry and Ryle, 2009) | | | |
| Vegetation structure: negative indicator species - *Spartina anglica* / Hectares / No significant expansion of common cordgrass (*Spartina anglica*), with an annual spread of less than 1% | | | |
| **Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]**<br>To maintain the favourable conservation condition of the habitat in the SAC, which is defined as follows: | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| Habitat area / Hectares / Area stable or increasing, subject to natural processes, including erosion and succession | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either along or cumulatively with other pollution sources, could potentially affect the quality (vegetation structure and composition) and area / distribution of intertidal / coastal habitats.<br><br>The introduction and / or spread of non-native invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. | Yes<br>The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme.<br><br>The mitigation measures described in Section 7.1.4 will prevent the introduction and / or spread of non-native invasive species to downstream European sites during construction and operation of the Proposed Scheme. | No |
| Habitat distribution / Occurrence / No decline, or change in habitat distribution, subject to natural processes | | | |
| Physical structure: sediment supplyPresence / absence of physical barriers / Maintain natural circulation of sediments and organic matter, without any physical obstructions | | | |
| Physical structure: creeks and pans / Occurrence / Maintain creek and pan structure, subject to natural processes, including erosion and succession | | | |
| Physical structure: flooding regime / Hectares flooded; frequency / Maintain natural tidal regime | | | |
| Vegetation structure: zonation / Occurrence / Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession | | | |
| Vegetation structure: vegetation height / Centimetres / Maintain structural variation within sward | | | |
| Vegetation structure: vegetation cover / Percentage cover at a representative number of monitoring stops / Maintain more than 90% of area outside creeks vegetated | | | |
| Vegetation composition: typical species and sub-communities / Percentage cover at a representative number of monitoring stops / Maintain the presence of species-poor communities listed in SMP (McCorry and Ryle, 2009) | | | |
| Vegetation structure: negative indicator species - *Spartina anglica* / Hectares / No significant expansion of common cordgrass (*Spartina anglica*), with an annual spread of less than 1% | | | |
| **Mediterranean salt meadows (Juncetalia maritimi) [1410]**<br>To maintain the favourable conservation condition of the habitat in the SAC, which is defined as follows: | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| Habitat area / Hectares / Area stable or increasing, subject to natural processes, including erosion and succession | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either along or cumulatively with other pollution sources, could potentially affect the quality (vegetation structure and composition) and area / distribution of intertidal / coastal habitats.<br><br>The introduction and / or spread of non-native invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. | Yes<br>The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme.<br><br>The mitigation measures described in Section 7.1.4 will prevent the introduction and / or spread of non-native invasive species to downstream European sites during construction and operation of the Proposed Scheme. | No |
| Habitat distribution / Occurrence / No decline, or change in habitat distribution, subject to natural processes | | | |
| Physical structure: sediment supply / Presence / absence of physical barriers / Maintain natural circulation of sediments and organic matter, without any physical obstructions | | | |
| Physical structure: creeks and pans / Occurrence / Maintain creek and pan structure, subject to natural processes, including erosion and succession | | | |
| Physical structure: flooding regime / Hectares flooded; frequency / Maintain natural tidal regime | | | |
| Vegetation structure: zonation / Occurrence / Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession | | | |
| Vegetation structure: vegetation height / Centimetres / Maintain structural variation within sward | | | |
| Vegetation structure: vegetation cover / Percentage cover at a representative number of monitoring stops / Maintain more than 90% of area outside creeks vegetated | | | |
| Vegetation composition: typical species and sub-communities / Percentage cover at a representative number of monitoring stops / Maintain the presence of species-poor communities listed in SMP (McCorry and Ryle, 2009) | | | |
| Vegetation structure: negative indicator species - *Spartina anglica* / Hectares / No significant expansion of common cordgrass (*Spartina anglica*), with an annual spread of less than 1% | | | |
| **Embryonic shifting dunes [2110]**<br>To restore the favourable conservation condition of the habitat in the SAC, which is defined as follows: | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| Habitat area / Hectares / Area stable or increasing, subject to natural processes, including erosion and succession. | Yes<br>Terrestrial habitats above the high tide line are not at risk of effects from water pollution in Dublin Bay.<br><br>The introduction and / or spread of non-native invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. | Yes<br><br>The mitigation measures described in Section 7.1.4 will prevent the introduction and / or spread of non-native invasive species to downstream European sites during construction and operation of the Proposed Scheme. | No |
| Habitat distribution / Occurrence / No decline, or change in habitat distribution, subject to natural processes. | | | |
| Physical structure: functionality sediment supply / Presence / absence of physical barriers / Maintain natural circulation of sediments and organic matter, without any physical obstructions | | | |
| Vegetation structure: zonation / Occurrence / Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession | | | |
| Vegetation composition: plant health of foredune grasses / Percentage cover / More than 95% of sand couch (*Elytrigia juncea*) and / or lyme-grass (*Leymus arenarius*) should be healthy (i.e. green plant parts above ground and flowering heads present) | | | |
| Vegetation composition: typical species and sub-communities / Percentage cover at a representative number of monitoring stops / Maintain the presence of species-poor communities with typical species: sand couch (*Elytrigia juncea*) and / or lyme-grass (*Leymus arenarius*) | | | |
| Vegetation composition: negative indicator species / Percentage cover / Negative indicator species (including non-native species) to represent less than 5% cover | | | |
| **Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120]**<br>To restore the favourable conservation condition of the habitat in the SAC, which is defined as follows: | | | |
| Habitat area / Hectares / Area stable or increasing, subject to natural processes, including erosion and succession | Yes<br>Terrestrial habitats above the high tide line are not at risk of effects from water pollution in Dublin Bay. | Yes<br>The mitigation measures described in Section 7.1.4 will prevent the introduction and / or spread of non- | No |
| Habitat distribution / Occurrence / No decline, or change in habitat distribution, subject to natural processes | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| Physical structure: functionality sediment supply / Presence / absence of physical barriers / Maintain natural circulation of sediments and organic matter, without any physical obstructions | The introduction and / or spread of non-native invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. | native invasive species to downstream European sites during construction and operation of the Proposed Scheme. | |
| Vegetation structure: zonation / Occurrence / Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession | | | |
| Vegetation composition: plant health of dune grasses / Percentage cover / 95% of marram grass (*Ammophila arenaria*) and / or lyme-grass (*Leymus arenarius*) should be healthy (i.e. green plant parts above ground and flowering heads present) | | | |
| Vegetation composition: typical species and sub-communities / Percentage cover at a representative number of monitoring stops / Maintain the presence of species-poor communities dominated by marram grass (*Ammophila arenaria*) and / or lyme grass (*Leymus arenarius*) | | | |
| Vegetation composition: negative indicator species / Percentage cover / Negative indicator species (including non-native species) to represent less than 5% cover | | | |
| **Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] *** To restore the favourable conservation condition of the habitat in the SAC, which is defined as follows: | | | |
| Habitat area / Hectares / Area stable or increasing, subject to natural processes, including erosion and succession | Yes<br>Terrestrial habitats above the high tide line are not at risk of effects from water pollution in Dublin Bay.<br><br>The introduction and / or spread of non-native invasive species to | Yes<br>The mitigation measures described in Section 7.1.4 will prevent the introduction and/or spread of non-native invasive species to downstream European sites during | No |
| Habitat distribution / Occurrence / No decline, or change in habitat distribution, subject to natural processes | | | |
| Physical structure: functionality sediment supply / Presence / absence of physical barriers / Maintain natural circulation of sediments and organic matter, without any physical obstructions | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| Vegetation structure: zonation / Occurrence / Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession | downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. | construction and operation of the Proposed Scheme. | |
| Vegetation structure: bare ground / Percentage cover / Bare ground should not exceed 10% of fixed dune habitat, subject to natural processes | | | |
| Vegetation structure: sward height / Centimetres / Maintain structural variation in the sward | | | |
| Vegetation composition: typical species and sub-communities / Percentage cover at a representative number of monitoring stops / Maintain range of sub-communities with typical species listed in Delaney *et al*. (2013) | | | |
| Vegetation composition: negative indicator species (including *Hippophae rhamnoides*) / Percentage cover / Negative indicator species (including non-native species) to represent less than 5% cover | | | |
| Vegetation composition: scrub / trees / Percentage cover / No more than 5% cover or under control | | | |
| **Humid dune slacks [2190]**<br>To restore the favourable conservation condition of the habitat in the SAC, which is defined as follows: | | | |
| Habitat area / Hectares / Area increasing, subject to natural processes, including erosion and succession | Yes<br>Terrestrial habitats above the high tide line are not at risk of effects from water pollution in Dublin Bay.<br><br>The introduction and / or spread of non-native invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular | Yes<br>The mitigation measures described in Section 7.1.4 will prevent the introduction and/or spread of non-native invasive species to downstream European sites during construction and operation of the Proposed Scheme. | No |
| Habitat distribution / Occurrence / No decline, or change in habitat distribution, subject to natural processes | | | |
| Physical structure: functionality sediment supply / Presence / absence of physical barriers / Maintain natural circulation of sediments and organic matter, without any physical obstructions | | | |
| Physical structure: hydrological and flooding regime / Water table levels; groundwater fluctuations (metres) / Maintain natural hydrological regime | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| Vegetation structure: zonation / Occurrence / Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession | coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. | | |
| Vegetation structure: bare ground / Percentage cover / Bare ground should not exceed 5% of dune slack habitat, with the exception of pioneer slacks which can have up to 20% bare ground | | | |
| Vegetation structure: vegetation height / Centimetres / Maintain structural variation within the sward | | | |
| Vegetation composition: typical species and sub-communities / Percentage cover at a representative number of monitoring stops / Maintain range of sub-communities with typical species listed in Delaney *et al*., (2013) | | | |
| Vegetation composition: cover of Salix repens / Percentage cover; centimetres / Maintain less than 40% cover of creeping willow (*Salix repens*) | | | |
| Vegetation composition: negative indicator species / Percentage cover / Negative indicator species (including non-native species) to represent less than 5% cover | | | |
| Vegetation composition: scrub / trees / Percentage cover / No more than 5% cover or under control | | | |
| **Petalwort *Petalophyllum ralfsii* [1395]**<br>To maintain the favourable conservation condition of the species in the SAC, which is defined as follows: | | | |
| Distribution of populations / Number and geographical spread of populations / No decline | No<br>As a terrestrial flora species of damp calcareous dune slacks, found above the high tide line, it is not at risk of effects from water pollution in Dublin Bay. | No<br>The mitigation measures described in Section 7.1.4 will prevent the introduction and/or spread of non-native invasive species to downstream European sites during construction and operation of the Proposed Scheme. | No |
| Population size / Number of individuals / No decline | | | |
| Area of suitable habitat / Hectares / No decline | | | |
| Hydrological conditions: soil moisture / Occurrence / Maintain hydrological conditions so that substrate is kept moist and damp throughout the year, but not subject to prolonged inundation by flooding in winter | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| Vegetation structure: height and cover / Centimetres and percentage / Maintain open, low vegetation with a high percentage of bryophytes (small acrocarps and liverwort turf) and bare ground | The introduction and / or spread of non-native invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. | | |
| **South Dublin Bay SAC** | | | |
| **Mudflats and sandflats not covered by water at low tide [1140]**<br>To maintain the favourable conservation condition of the habitat in the SAC, which is defined as follows: | | | |
| Habitat area / Hectares / The permanent habitat area is stable or increasing, subject to natural processes | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either along or cumulatively with other pollution | Yes<br>The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during | No |
| Community extent / Hectares / Maintain the extent of the *Zostera* dominated community, subject to natural processes | | | |
| Community structure: *Mytilus edulis* density / Individuals / $m^2$ / Conserve the high quality of the *Zostera* dominated community, subject to natural processes | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| Community distribution / Hectares / Conserve the following community type in a natural condition: Fine sands with *Angulus tenuis* community complex | sources, could potentially affect the quality (vegetation structure and composition) and area / distribution of intertidal / coastal habitats.<br><br>The introduction and / or spread of non-native invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. | construction and operation of the Proposed Scheme.<br><br>The mitigation measures described in Section 7.1.4 will prevent the introduction and / or spread of non-native invasive species to downstream European sites during construction and operation of the Proposed Scheme. | |
| **Annual Vegetation of drift lines [1210]**<br>To restore the favourable conservation condition of the habitat in the SAC, which is defined as follows: | | | |
| Habitat area / Hectares / Area increasing, subject to natural processes, including erosion and succession | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either along or cumulatively with other pollution sources, could potentially affect the quality (vegetation structure and composition) and area / distribution of intertidal / coastal habitats. | Yes<br>The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme.<br><br>The mitigation measures described in Section 7.1.4 will prevent the | No |
| Habitat distribution / Occurrence / No decline, or change in habitat distribution, subject to natural processes | | | |
| Physical structure: functionality and sediment supply / Presence / absence of physical barriers / Maintain the natural circulation of sediment and organic matter, without any physical obstructions | | | |
| Vegetation structure: zonation / Occurrence / Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| Vegetation composition: typical species and sub-communities / Percentage cover at a representative number of monitoring stops / Maintain the presence of species-poor communities with typical species: sea rocket (*Cakile maritima*), sea sandwort (*Honckenya peploides*), prickly saltwort (*Salsola kali*) and oraches (*Atriplex* spp.) | The introduction and / or spread of non-native invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. | introduction and / or spread of non-native invasive species to downstream European sites during construction and operation of the Proposed Scheme. | |
| Vegetation composition: negative indicator species / Percentage cover / Negative indicator species (including non-natives) to represent less than 5% cover | | | |
| ***Salicornia* and other annuals colonising mud and sand [1310]**<br>To restore the favourable conservation condition of the habitat in the SAC, which is defined as follows: | | | |
| Habitat area / Hectares / Area stable or increasing, subject to natural processes, including erosion and succession | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either along or cumulatively with other pollution sources, could potentially affect the quality (vegetation structure and composition) and area / distribution of intertidal / coastal habitats. | Yes<br>The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme.<br><br>The mitigation measures described in Section 7.1.4 will prevent the introduction and / or spread of non- | No |
| Habitat distribution / Occurrence / No decline, or change in habitat distribution, subject to natural processes | | | |
| Physical structure: sediment supply / Presence / absence of physical barriers. Maintain, or where necessary restore, natural circulation of sediments and organic matter, without any physical obstructions | | | |
| Physical structure: creeks and pans / Occurrence / Maintain creek and pan structure, subject to natural processes, including erosion and succession | | | |
| Physical structure: flooding regime / Hectares flooded; frequency / Maintain natural tidal regime | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| Vegetation structure: zonation / Occurrence / Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession | The introduction and / or spread of non-native invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. | native invasive species to downstream European sites during construction and operation of the Proposed Scheme. | |
| Vegetation structure: vegetation height / Centimetres / Maintain structural variation within sward | | | |
| Vegetation structure: vegetation cover / Percentage cover at a representative number of monitoring stops / Maintain more than 90% of area outside creeks vegetated | | | |
| Vegetation composition: typical species and subcommunities / Percentage cover / Maintain the presence of species-poor communities listed in SMP (McCorry and Ryle, 2009) | | | |
| Vegetation structure: negative indicator species - *Spartina anglica* / Hectares / No significant expansion of common cordgrass (*Spartina anglica*), with an annual spread of less than 1% | | | |
| **Embryonic shifting dunes [2110]**<br>To restore the favourable conservation condition of the habitat in the SAC, which is defined as follows: | | | |
| Habitat area / Hectares / Area stable or increasing, subject to natural processes, including erosion and succession. | Yes<br>Terrestrial habitats above the high tide line are not at risk of effects from water pollution in Dublin Bay.<br><br>The introduction and / or spread of non-native invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or | Yes<br><br>The mitigation measures described in Section 7.1.4 will prevent the introduction and / or spread of non-native invasive species to downstream European sites during construction and operation of the Proposed Scheme. | No |
| Habitat distribution / Occurrence / No decline, or change in habitat distribution, subject to natural processes. | | | |
| Physical structure: functionality sediment supply / Presence / absence of physical barriers / Maintain natural circulation of sediments and organic matter, without any physical obstructions | | | |
| Vegetation structure: zonation / Occurrence / Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| Vegetation composition: plant health of foredune grasses / Percentage cover / More than 95% of sand couch (*Elytrigia juncea*) and / or lyme-grass (*Leymus arenarius*) should be healthy (i.e. green plant parts above ground and flowering heads present) | regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. | | |
| Vegetation composition: typical species and sub-communities / Percentage cover at a representative number of monitoring stops / Maintain the presence of species-poor communities with typical species: sand couch (*Elytrigia juncea*) and / or lyme-grass (*Leymus arenarius*) | | | |
| Vegetation composition: negative indicator species / Percentage cover / Negative indicator species (including non-native species) to represent less than 5% cover | | | |

### *7.1.4 Mitigation Measures*

181 This section presents the mitigation measures that will be implemented during Construction and Operation to avoid or reduce the potential impacts and effects of the Proposed Scheme on North Dublin Bay SAC and South Dublin Bay SAC. All of the mitigation measures will be implemented in full and are best practice, and tried and tested, effective control measures to protect the receiving environment. Mitigation measures and associated Management Plans are included within the Construction Environmental Management Plan (CEMP) provided in Appendix III, all of which shall, at a minimum, be implemented during the Construction Phase of the Proposed Scheme.

182 The CEMP summarises the overall environmental management strategy that will be adopted and implemented during the Construction Phase and includes all aspects of the phased works including the longer established Construction Compounds of the Proposed Scheme. The purpose of the CEMP is to demonstrate how the proposed construction works can be delivered in a logical, sensible and safe sequence with the incorporation of specific environmental control measures relevant to construction works of this nature. The CEMP sets out the mechanism by which environmental protection is to be achieved during the Construction Phase of the Proposed Scheme. The CEMP has been prepared in accordance with the following industry best practice guidance:

- TII's Guidelines for the Creation, Implementation and Maintenance of an Environmental Operating Plan (TII, 2007); and
- Construction Industry Research and Information Association (CIRIA) in the UK, Environmental Good Practice on Site Guide, 4th Edition (CIRIA, 2015).

183 The CEMP has been prepared in conjunction with input from members of the BusConnects Infrastructure team. The CEMP supports the information already provided in the EIAR and the NIS and must be read in conjunction with the information already provided in the NIS. The details relevant to European sites are already provided in the NIS.

184 The information included in the CEMP is presented under the following topics:

- Proposed Scheme Details;
- Planning Consent;
- Contact Sheets;
- Roles and Responsibilities;
- Communication;
- Environmental Awareness Training;
- Compliance and Review;
- Environmental Commitments; and,
- Site Specific Method Statements/Management Plans.
    - Construction Traffic Management Plan;
    - Invasive Species Management Plan (ISMP);
    - Surface Water Management Plan (SWMP);
    - Construction and Demolition Resource and Waste Management Plan; and,
    - Environmental Incident Response Plan.

185 The CEMP has been prepared and is included as Appendix III of this NIS. The CEMP will be updated by the NTA prior to the commencement of the Construction Phase, so as to include any additional measures required pursuant to conditions attached to any decision to grant approval. The CEMP has regard to the guidance contained in the TII Guidelines for the Creation, Implementation and Maintenance of an Environmental Operating Plan, and the handbook published by Construction Industry Research and Information Association (CIRIA) in the UK, Environmental Good Practice on Site Guide, 4th Edition (CIRIA, 2015).

- A number of sub-plans have also been prepared as part of the CEMP, including a SWMP and an ISMP, as outlined above. For the avoidance of doubt, all of the measures set out in the CEMP and the sub-plans appended to this NIS and EIAR will be implemented in full by the appointed contractor to the satisfaction of the NTA.

Measures to Protect Surface Water Quality

186 This section presents the mitigation measures that will be implemented during Construction and Operation to avoid the potential impacts of the Proposed Scheme on downstream European sites. All of the mitigation measures will be implemented in full. They are in accordance with best practice, and tried and tested, effective control measures to protect the receiving environment.

187 A CEMP, including a SWMP and ISMP, have been submitted with the application documentation to An Bord Pleanála (see Appendix III of this NIS).

188 These measures have been developed in consideration of the following standard best international practice including but not limited to:

- CIRIA (2015) *Environmental Good Practice on Site Guide*, 4th Edition (C741);
- CIRIA (2001) *Control of Water Pollution from Construction Sites, Guidance for Consultants and Contractors (C532)*;
- CIRIA (2000) *Environmental Handbook for Building and Civil Engineering Projects (C512);*
- CIRIA (2007) *The SUDS Manual (C697);*
- CIRIA (2006a) *Control of water pollution from linear construction projects: Technical guidance (C648);*
- CIRIA (2006b) *Control of water pollution from linear construction projects: Site guide (C649);*
- IFI (2016) *Guidelines on Protection of Fisheries During Construction Works in and Adjacent to Waters;*
- *UK Pollution Prevention Guidelines (PPG)* UK Environment Agency, 2004; and,
- Enterprise Ireland (2003) *Best Practice Guidelines BPGCS005 – Oil Storage Guidelines.*

*Measures to Protect Surface Water Quality during Construction*

189 The following specific mitigation measures, all of which are set out in the CEMP, shall be implemented to mitigate against the release of hydrocarbons, polluting chemicals, sediment / silt and contaminated waters control:

- Specific measures to prevent the release of sediment over baseline conditions in the downstream receiving water environment, during the construction work. These measures include, but are not limited to, the use of silt fences, silt curtains, settlement lagoons and filter materials.
- Provision of exclusion zones and barriers (e.g., silt fences) between earthworks, stockpiles and temporary surfaces to prevent sediment washing into the existing drainage systems and hence the downstream receiving water environment.
- Provision of temporary construction surface drainage and sediment control measures to be in place before earthworks commence.
- Weather conditions will be taken into account when planning construction activities to minimise risk of run-off from the site.
- Prevailing weather and environmental conditions will be taken into account prior to the pouring of cementitious materials for the works adjacent to any surface water drainage features, or drainage features connected to same. Pumped concrete will be monitored to ensure no accidental discharge. Mixer washings and excess concrete will not be discharged to existing surface water drainage systems. Concrete washout areas will be located remote from any surface water drainage

features, to avoid accidental discharge to watercourses. Concrete trucks will not be washed out on site.

- Any fuels or chemicals (including hydrocarbons or any polluting chemicals) will be stored in a designated, secure bunded area(s) within the construction compound to prevent any seepage of potential pollutants into the local surface water network. These designated areas will be clearly sign-posted and all personnel on site will be made aware of their locations and associated risks.
- All mobile fuel bowsers shall carry a spill kit and operatives must have spill response training. All fuel containing equipment such as portable generators shall be placed on drip trays. All fuels and chemicals required to be stored on-site will be clearly marked. Care and attention will be taken during refuelling and maintenance operations. Particular attention will be paid to gradient and ground conditions, which could increase risk of discharge to waters.
- A register of all hazardous substances, which will either be used on site or expected to be present (in the form of soil and/or groundwater contamination) will be established and maintained. This register will be available at all times and shall include as a minimum:
    - Valid Safety Data Sheets;
    - Health & Safety, Environmental controls to be implemented when storing, handling, using and in the event of spillage of materials;
    - Emergency response procedures / precautions for each material; and
    - The Personal Protective Equipment (PPE) required when using the material.
- Implementation of response measures to potential pollution incidents:
    - An Environmental Incident Response Plan has been included within the CEMP and will be finalised prior to works commencing and will be communicated, resourced and implemented for the duration of the works. The EIRP describes the procedures, lines of authority and processes that will be followed to ensure that incident response efforts are prompt, efficient, and suitable for particular circumstances. The EIRP details the procedures to be undertaken in the event of the release of any sediment into a watercourse, serious spillage of chemical, fuel or other hazardous wastes (e.g., concrete), non-compliance incident with any permit or license, or other such risks that could lead to a pollution incident, including flood risks.
    - Emergency procedures / precautions and spillage kits will be available and construction staff will be trained and experienced in emergency procedures in the event of accidental fuel spillages. Details of these are included in Section 5.6 of the CEMP, in Appendix III of this NIS.
- All trucks will have tarpaulin that will cover excavated material as it is being hauled off-site and wheel wash facilities will be provided at all site egress points.
- Any dewatering in areas of contaminated ground shall be designed by the appointed contractor to minimise the mobilisation of contaminants into the surrounding environment.
- The removal of any made ground material, which may be contaminated, from the construction site and transportation to an appropriate licenced facility shall be carried out in accordance with the Waste Management Act, best practice and guidelines for same.
- A discovery procedure for contaminated material will be prepared and adopted by the appointed contractor prior to excavation works commencing on site. These documents will detail how potentially contaminated material will be dealt with during the excavation phase.
- Implementation of measures to minimise waste and ensure correct handling, storage and disposal of waste (most notably wet concrete, pile arisings and asphalt).

- All of the above measures implemented on site will be monitored throughout the duration of construction to ensure that they are working effectively, to implement maintenance measures if required/applicable and to address any potential issues that may arise.

Site specific Mitigation measures for Construction Compounds TR3 and TR6

Construction Compound TR3 at Dodder View Road is located in close proximity to the Dodder_050, and there are potential impacts from contaminated surface water runoff during the set up and operation of the compound. Silt curtains/ bunding or infiltration trenches will be installed by the appointed contractor on the boundary inside the retaining wall, and higher than it, to prevent any silty water or spillages from reaching the water body. Fuels will be stored as far away as possible from the road to minimise the chances of an overland flow of spillages, especially via access and egress routes. All other high risk activities or storage of materials will be located at the southern boundary of the site.

- For Construction Compound TR6 at Spawell Link Road silt curtains or soil 'bunds' (as is used for the existing compound) will be installed and maintained. Fuel and other materials will be stored at the southern boundary of the site.

*Measures to Protect Surface Water Quality during Operation*

190 Mitigation for the Operational Phase has been built into the design of the Proposed Scheme. The overall net increase in impermeable area for the road corridor will be 7435m$^2$ . This increase in impermeable area will be managed for the Proposed Scheme through a combination of oversized pipes, tree pits, surface water channels, sealed drains, filter drains and rain gardens, as well as pollution control measures as required in accordance with DMRB and CIRIA design standards. Where no new paved areas are proposed, the existing drainage network will be retained and utilised (See Appendix II for Proposed Drainage Designs)

191 These measures will ensure that there is no increase in existing runoff rates from newly paved areas and appropriate treatment to ensure runoff quality.

192 The range of measures including SuDS systems installed during the Construction Phase will reduce both the volume and rate of surface waters discharging into the existing surface water drainage network, as well as improving the environmental quality of any such discharges during the Operational Phase of the Proposed Scheme.

193 These standard drainage design controls have been proven through widespread use in developments across the country. The proposed SuDS drainage system incorporated into the engineering design of the site are common drainage systems that are used in most development types. They are proposed and designed in accordance with the Greater Dublin Strategic Drainage Study (DDS, 2005). In the Operational Phase, the infrastructure (including the maintenance regime for SuDS and monitoring of waterbodies) will be carried out by the relevant local authority and will be subject to their management procedures. No additional mitigation is required.

Measures to Prevent the Spread of Non-Native Invasive Species to Downstream European Sites During Construction

*Confirmatory Pre-construction survey*

194 The NTA will ensure that a confirmatory pre-construction non-native invasive species survey will be undertaken by a suitably qualified specialist to confirm the absence and / or extent of all Third Schedule non-native invasive species within the footprint of the Proposed Scheme. Where an infestation is confirmed / identified within the footprint of the Proposed Scheme, this will require the implementation of a Non-Native Invasive Species Management Plan (refer to the CEMP in Appendix III of this NIS).

*Non-native Invasive Species Management Plan (ISMP)*

195 Where a pre-construction non-native invasive species re-survey has confirmed the presence of previously identified Third Schedule non-native invasive species, or identifies newly established non-native invasive species within the footprint of the Proposed Scheme, the ISMP produced will provide a detailed description of the infestations (e.g. approximate area of the respective colonies (m$^2$), where feasible; approximate total

number of stems, pattern of growth and information on other vegetation present), and where necessary, include calculations of volumes of infested soils to be excavated.

196 The ISMP for the Proposed Scheme will be implemented, including the detailed control measures contained within it, as advised by a suitably qualified specialist, in accordance with the Transport Infrastructure Ireland's *The Management of Invasive Alien Plant Species on National Roads - Technical Guidance* (2020a) and *The Management of Invasive Alien Plant Species on National Roads – Standard* (2020b) , and other species-specific guidance documents including those listed in the non-native ISMP, as necessary.

197 The NTA will ensure that all control measures specified in the Proposed Schemes non-native ISMP shall be implemented by a suitably qualified and licenced specialist prior to the construction of the Proposed Scheme to control the spread of newly established non-native invasive species within the footprint of the Proposed Scheme. Furthermore, the appointed contractor will adhere to control measures specified within the Non-Native ISMP throughout the Construction Phase of the Proposed Scheme.

198 The site will be monitored by the appointed contractor in consultation with the suitably qualified and licensed specialist after the control measures have been implemented. Any re-growth will be subsequently treated as detailed in the Proposed Scheme ISMP. The ISMP is contained within Appendix III to the NIS.

Measures to Prevent the Spread of Non-Native Invasive Species to Downstream European Sites During Operation

Once the Proposed Scheme is in operation, the control of invasive species will be subject to local authorities management procedures. No additional mitigation is required.

#### *7.1.5 Residual Impacts*

With the effective implementation of appropriate mitigation measures identified in this NIS, the Proposed Scheme poses no risk of affecting the conservation objectives, or the favourable conservation condition, of the Qualifying Interest habitats (and species) of North Dublin Bay SAC and South Dublin Bay SAC and there are therefore no residual direct or indirect impacts associated with the Proposed Scheme that could adversely affect the integrity of North Dublin Bay SAC and South Dublin Bay SAC. As is confirmed by the Water Framework Directive Assessment for the Proposed Scheme (refer to Appendix V), the Proposed Scheme will not cause a deterioration in status in any water body, will not prevent any water body from achieving good ecological status or good ecological potential, and it can be concluded that the Proposed Scheme complies with all requirements of the WFD.

#### *7.1.6 Conclusion of Assessment for North Dublin Bay SAC and South Dublin Bay SAC*

199 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the Qualifying Interests of North Dublin Bay SAC and South Dublin Bay SAC, the potential impacts and mitigation measures, and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the Qualifying Interests, it has been concluded that the Proposed Scheme does not pose a risk of adversely affecting (either directly or indirectly) the integrity of North Dublin Bay SAC and South Dublin Bay SAC.

### 7.2 Rockabill to Dalkey Island SAC [003000] and Lambay Island SAC [000204]

#### *7.2.1 Ecological Baseline Description for Rockabill to Dalkey Island SAC*

200 According to the Natura 2000 Standard Data Form (NPWS, 2019e), this SAC is a marine site that is a rectangle shaped area extending from Rockabill south to Dalkey Island in south Dublin. The SAC has been selected for the Annex I habitat: [1170] Reefs. The only species listed as a qualifying interest for the Rockabill to Dalkey Island SAC is the Harbour porpoise *Phocoena phocoena* [1351]. Surveys of the site estimated that there are 211±47 Harbour porpoises in the northern part of the site and 138±33 in the southern part (Berrow *et al*., 2010). Calves and juveniles have been recorded across the SAC, which suggests the site has value in the reproductive cycle of the species.

### *7.2.2 Ecological Baseline Description for Lambay Island SAC*

201 In the Natura 2000 Standard Data Form (NPWS, 2019f), this SAC is stated to be Ireland's largest east coast island, lying 4km off Dublin. The island is surrounded by steep cliffs on the north, east and south sides which hold internationally important populations of seabirds. Most of the western third of the island is intensively farmed, while the rest is a mixture of less intensively grazed land, rock outcrops, scrub and bracken. Lambay Island is surrounded by intertidal and subtidal reef habitat. This site provides year-round haul-out habitat for the Annex II seal species grey seal *Halichoerus grypus* and harbour seal *Phoca vitulina*, and includes regionally significant breeding and moulting sites.

### *7.2.3 Qualifying Interests and Conservation Objectives of Rockabill to Dalkey Island SAC and Lambay Island SAC*

202 The Qualifying Interests of Rockabill to Dalkey Island SAC and Lambay Island SAC, and the overall conservation objectives, are listed in Table 11.

***Table 11: Qualifying Interests and Conservation Objectives of Rockabill to Dalkey Island SAC and Lambay Island SAC***

| Qualifying Interest(s) | Conservation Objective(s) |
|---|---|
| **Rockabill to Dalkey Island SAC [003000]**<br>1170 Reefs<br>1351 Harbour porpoise *Phocoena phocoena*<br><br>*S.I. No. 94 / 2019 - European Union Habitats (Rockabill to Dalkey Island Special Area of Conservation 003000) Regulations 2019.*<br>NPWS (2013c) *Conservation Objectives: Rockabill to Dalkey Island SAC 003000.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | To maintain the favourable conservation condition of the Annex I habitat(s) and / or the Annex II species for which the SAC has been selected |
| **Lambay Island SAC [000204]**<br>1170 Reefs<br>1230 Vegetated sea cliffs of the Atlantic and Baltic coasts<br>1364 Grey seal *Halichoerus grypus*<br>1365 Harbour seal *Phoca vitulina*<br><br>*S.I. No. 294 / 2019 – European Union Habitats (Lambay Island Special Area Of Conservation 000204) Regulations 2019.*<br>NPWS (2013e) *Conservation Objectives: Lambay Island SAC 000204.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | To maintain the favourable conservation condition of the Annex I habitat(s) and / or the Annex II species for which the SAC has been selected |

203 In conjunction with considering the generic conservation objective for this SAC "To maintain the favourable conservation condition of the Annex I habitat(s) and / or the Annex II species for which the SAC has been selected", the site-specific conservation objectives documents for Rockabill to Dalkey Island SAC and Lambay Island SAC also informed this assessment.

204 The site-specific conservation objectives document sets out the attributes, measures and targets that define the favourable conservation condition of the Qualifying Interests within the European site. Affecting the conservation condition of the Qualifying Interests is deemed to constitute an adverse effect on the integrity of a European site. The specific attributes and targets used to define the conservation objectives of the Qualifying Interests of Rockabill to Dalkey Island SAC and Lambay Island SAC are presented in Section 7.2.4.2.

### *7.2.4 Examination and Analysis of Potential Direct and Indirect Impacts*

205 The direct and / or indirect impacts by which the Proposed Scheme could (in the absence of mitigation measures) potentially affect the conservation objective attributes and targets supporting the conservation condition of the Qualifying Interests of Rockabill to Dalkey Island SAC and Lambay Island SAC is:

- Habitat degradation / effects on QI species as a result of hydrological impacts.

#### 7.2.4.1 Habitat degradation / effects on QI species as a result of hydrological impacts

206 The release of contaminated surface water runoff and / or an accidental spillage or pollution event into any surface water features during construction, or operation, has the potential to affect water quality in the receiving aquatic environment. Such a pollution event may include: the release of sediment into receiving waters and the subsequent increase in mobilised suspended solids; and the accidental spillage and / or leaks of contaminants into receiving waters. The associated effects of a reduction of surface water quality could potentially extend for a considerable distance downstream of the location of the accidental pollution event or the discharge. The Proposed Scheme is hydrologically connected to Dublin Bay via the Owenadoher River, River Dodder, the Grand Canal as well as the Liffey Estuary Upper and Lower as well as a network of interconnecting and established surface or combined sewer/surface water pipes. In a potential worst-case scenario, the release of contaminated surface water runoff and/or an accidental spillage or pollution event into any surface water features during construction, or operation, has the potential to affect the Qualifying Interest marine mammal species that commute and forage in Dublin Bay i.e., marine mammals associated with Rockabill to Dalkey Island SAC and Lambay Island SAC. This reduction in water quality (either alone or in combination with other pressures on water quality) could result in the degradation of sensitive habitats present downstream (e.g., reefs [1170]), which in turn could negatively affect the Qualifying Interest marine mammal species that rely upon these habitats for foraging purposes. It could also negatively affect the quantity and quality of prey available to populations of Qualifying Interest marine mammals. Therefore, there is potential for the Proposed Scheme to result in significant effects which could have implications for the conservation objectives of Rockabill to Dalkey Island SAC and Lambay Island SAC as a result of hydrological impacts.

#### 7.2.4.2 Summary

207 Table 12 presents a summary of the potential impacts of the Proposed Scheme on the Qualifying Interests of Rockabill to Dalkey Island SAC and Lambay Island SAC, and how these impacts relate to affecting the site's conservation objectives.

***Table 12: Potential Impacts / Effects on the Conservation Objectives of Rockabill to Dalkey Island SAC and Lambay Island SAC***

| **Conservation Objectives**<br>**Attribute / Measure / Target** | **Potential Impacts Requiring Mitigation?** | **Are mitigation measures required?** | **Residual Impacts?** |
|---|---|---|---|
| **Rockabill to Dalkey Island SAC** | | | |
| **Reefs [1170]**<br>To maintain the favourable conservation condition of the habitat in the SAC, which is defined as follows: | | | |
| Habitat area / Hectares / The permanent habitat area is stable or increasing, subject to natural processes | Yes<br>In a worst-case scenario, an accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quality (vegetation structure and composition) and area / distribution of intertidal / coastal habitats | Yes<br>The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | No |
| Habitat distribution / Occurrence / Distribution is stable or increasing, subject to natural processes | | | |
| Community structure / Biological composition / Conserve the following community types in a natural condition: Intertidal reef community complex; and Subtidal reef community complex | | | |
| **Harbour porpoise *Phocoena phocoena* [1351]**<br>To maintain the favourable conservation condition of Harbour porpoise in Rockabill to Dalkey Island SAC, which is defined as follows: | | | |
| Access to suitable habitat / Number of artificial barriers / Species range within the site should not be restricted by artificial barriers to site use | Yes | Yes | No |

| | | | |
|---|---|---|---|
| Disturbance / Level of impact / Human activities should occur at levels that do not adversely affect the harbour porpoise community at the site | In a worst-case scenario, an accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quality (vegetation structure and composition) and area / distribution of intertidal / coastal habitats<br>porpoise and fish prey species. | The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | |
| **Lambay Island SAC** | | | |
| **Reefs [1170]**<br>To maintain the favourable conservation condition of the habitat in the SAC, which is defined as follows: | | | |
| Habitat area / Hectares / The permanent habitat area is stable or increasing, subject to natural processes | No<br>There is no potential for impacts to occur on any habitats associated with the Lambay Island SAC as it is located a significant distance from the Proposed Scheme, and on the northern side of the Howth peninsula. | No | No |
| Habitat distribution / Occurrence / Distribution is stable or increasing, subject to natural processes | | | |
| Community structure / Biological composition / Conserve the following community types in a natural condition: Intertidal reef community complex; *Laminaria*-dominated community complex | | | |
| **Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]**<br>To maintain the favourable conservation condition of Vegetated sea cliffs of the Atlantic and Baltic coasts in Lambay Island SAC, which is defined as follows: | | | |
| Habitat length Kilometres Area stable, subject to natural processes, including erosion | No<br>Terrestrial habitats above the high tide line are not at risk of effects from water pollution in Dublin Bay | No | No |
| Habitat distribution / Occurrence / No decline, subject to natural processes | | | |
| Physical structure: functionality and hydrological regime / Occurrence of artificial barriers / No alteration to natural functioning of geomorphological and hydrological processes due to artificial structures | | | |

| | | | |
|---|---|---|---|
| Vegetation structure: zonation / Occurrence / Maintain range of sea cliff habitat zonations including transitional zones, subject to natural processes including erosion and succession | | | |
| Vegetation structure: vegetation height / Centimetres / Maintain structural variation within sward | | | |
| Vegetation composition: typical species and subcommunities / Percentage cover at a representative sample of monitoring stops / Maintain range of subcommunities with typical species listed in the Irish Sea Cliff Survey | | | |
| Vegetation composition: negative indicator species / Percentage /Negative indicator species (including non-natives) to represent less than 5% cover | | | |
| Vegetation composition: bracken and woody species / Percentage Cover of bracken (*Pteridium aquilinum*) on grassland and / or heath less than 10% / Cover of woody species on grassland and / or heath less than 20% | | | |
| **Grey Seal *Halichoerus grypus* [1364]**<br>To maintain the favourable conservation condition of Grey Seal in Lambay Island SAC, which is defined as follows: | | | |
| Access to suitable habitat / Number of artificial barriers / Species range within the site should not be restricted by artificial barriers to site use | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quality of the intertidal / marine habitats which support grey seal. | Yes<br>The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | No |
| Breeding behaviour / Breeding sites / The breeding sites should be maintained in a natural condition | | | |
| Moulting behaviour / Moult haul-out sites / The moult haul-out sites should be maintained in a natural condition | | | |
| Resting behaviour / Resting haul-out sites / The resting haul-out sites should be maintained in a natural condition | | | |
| Disturbance / Level of impact / Human activities should occur at levels that do not adversely affect the grey seal population at the site | | | |
| **Harbour Seal *Phoca vitulina* [1365]**<br>To maintain the favourable conservation condition of Harbour Seal in Lambay Island SAC, which is defined as follows: | | | |
| Access to suitable habitat / Number of artificial barriers / Species range within the site should not be restricted by artificial barriers to site use | Yes | Yes | No |

| | | | |
|---|---|---|---|
| Breeding behaviour / Breeding sites / The breeding sites should be maintained in a natural condition | An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quality of the intertidal / marine habitats which support harbour seal. | The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | |
| Moulting behaviour / Moult haul-out sites / The moult haul-out sites should be maintained in a natural condition | | | |
| Resting behaviour / Resting haul-out sites / The resting haul-out sites should be maintained in a natural condition | | | |
| Disturbance /Level of impact / Human activities should occur at levels that do not adversely affect the harbour seal population at the site | | | |

### *7.2.5 Mitigation Measures*

208 This section presents the mitigation measures that will be implemented during Construction and Operation to avoid or reduce the potential impacts of the Proposed Scheme on Rockabill to Dalkey Island SAC and Lambay Island SAC. All of the mitigation measures will be implemented in full and are best practice, and tried and tested, effective control measures to protect the receiving environment.

Measures to Protect Surface Water Quality during Construction

209 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during the Construction of the Proposed Scheme.

Measures to Protect Surface Water Quality during Operation

210 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during the Operation of the Proposed Scheme.

### *7.2.6 Residual Impacts*

211 With the effective implementation of appropriate mitigation measures identified in this NIS, the Proposed Scheme poses no risk of affecting the conservation objectives, or the favourable conservation condition, of the Qualifying Interests of Rockabill to Dalkey Island SAC and Lambay Island SAC, and there are therefore, no residual direct or indirect impacts associated with the Proposed Scheme that could adversely affect the integrity of Rockabill to Dalkey Island SAC and Lambay Island SAC. As is confirmed by the Water Framework Directive Assessment for the Proposed Scheme (refer to Appendix V), the proposed Scheme will not cause a deterioration in status in any water body, will not prevent any water body from achieving good ecological status or good ecological potential, and it can be concluded that the Proposed Scheme complies with all requirements of the WFD.

### *7.2.7 Conclusion of Assessment for Rockabill to Dalkey Island SAC and Lambay Island SAC*

212 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the Qualifying Interests of Rockabill to Dalkey Island SAC and Lambay Island SAC, the potential impacts and mitigation measures, and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the Qualifying Interests, it has been concluded that the Proposed Scheme does not pose a risk of adversely affecting (either directly or indirectly) the integrity of Rockabill to Dalkey Island SAC and Lambay Island SAC.

## **7.3 Wicklow Mountains SAC [002122]**

### *7.3.1 Ecological Baseline Description for South Dublin Bay and River Tolka Estuary SPA*

213 The Natura 2000 Standard Data Form (NPWS, 2020o) notes that this is an extensive upland site comprising much of the Wicklow Mountains. Most of the site is occurs above 300m and includes the source of many rivers including the Liffey, the Dargle and the Slaney. The dominant habitats of the site include blanket bog, heath and upland grassland. Seven Red Data Book plant species occur within its territory and it supports significant breeding populations of merlin *Falco columbarius* and peregrine *Falco peregrinus* (both Birds directive Annex I SCI species for the overlapping Wicklow Mountains SPA [004040]). The SAC is designated for a number of Annex I habitats as well as mobile otter, which occurs on several of the riverine systems. Major threats to the site include urbanised areas / human habitation, walking, horse riding and non-motorised vehicles, paths, tracks and cycling tracks, hunting and collection of wild animals, invasive non-native species, military manoeuvres, and grazing.

### *7.3.2 Qualifying Interests and Conservation Objectives of Wicklow Mountains SAC*

214 The Qualifying Interests of Wicklow Mountains SAC, and the overall conservation objectives, are listed in Table 13.

***Table 13: Qualifying Interests and Conservation Objectives of Wicklow Mountains SAC***

| Qualifying Interest(s) | Conservation Objective(s) |
|---|---|
| **Wicklow Mountains SAC [002122][25]**<br>1355 Otter *Lutra lutra*<br>3110 Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae*)*<br>3130 Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and / or Isoeto-Nanojuncetea<br>3160 Natural dystrophic lakes and ponds<br>4010 Northern Atlantic wet heaths with *Erica tetralix*<br>4030 European dry heaths<br>4060 Alpine and Boreal heaths<br>6130 Calaminarian grasslands of the Violetalia calaminariae<br>6230 Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe)*<br>7130 Blanket bogs (* if active bog)<br>8110 Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)<br>8210 Calcareous rocky slopes with chasmophytic vegetation<br>8220 Siliceous rocky slopes with chasmophytic vegetation<br>91A0 Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles<br><br>NPWS (2017a*) Conservation Objectives: Wicklow Mountains SAC 002122*. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs. | To maintain the favourable conservation condition of the Annex I habitats for which the SAC has been selected |

215 In conjunction with considering the generic conservation objective for this SAC "To maintain the favourable conservation condition of the Annex I habitat(s) and / or the Annex II species for which the SAC has been selected", the site-specific conservation objectives documents for Wicklow Mountains SAC also informed this assessment.

216 The site-specific conservation objectives document sets out the attributes, measures and targets that define the favourable conservation condition of the Qualifying Interests within the European site. Affecting the conservation condition of the Qualifying Interests is deemed to constitute an adverse effect on the integrity of a European site. The specific attributes and targets used to define the conservation objectives of the Qualifying Interests of Wicklow Mountains SAC are presented in Section 7.3.3.3.

[25] Wicklow Mountains SAC has been included due to potential effects on the otter population (a mobile species). Qualifying Interest habitats for which this SAC has been designated are not at risk of effects arising from the Proposed Scheme as noted in section 6, as the SAC is located upstream of the Proposed Scheme. Habitats associated with the Wicklow Mountains SAC are not considered further in this report.

### *7.3.3 Examination and Analysis of Potential Direct and Indirect Impacts*

217 The direct and / or indirect impacts by which the Proposed Scheme could (in the absence of mitigation measures) potentially affect the conservation objective attributes and targets supporting the conservation condition of the Qualifying Interests of Wicklow Mountains SAC, are:

- Habitat degradation as a result of hydrological impacts; and
- Disturbance and displacement Impacts.

#### 7.3.3.1 Habitat degradation as a result of hydrological impacts

218 As the Wicklow Mountains SAC is located upstream of the Proposed Scheme, there is no potential for a pollution event of any magnitude to affect any QI habitats or associated plant species for which this European site is designated. However, as the Proposed Scheme is hydrologically connected to the River Dodder there is potential for impacts to occur on otter populations (a mobile species) associated with the Wicklow Mountains SAC. The Proposed Scheme is hydrologically connected to the River Dodder directly and indirectly via the River Dodder Itself, as well as the Owenadoher River, the Grand Canal as well as the Liffey Estuary Upper and Lower as well as a network of interconnecting and established surface or combined sewer / surface water pipes The release of contaminated surface water runoff and / or an accidental spillage or pollution event into watercourses during Construction, or Operation, has the potential to affect water quality in the receiving aquatic environment. Such a pollution event may include: the release of sediment into receiving waters and the subsequent increase in mobilised suspended solids; and the accidental spillage and / or leaks of contaminants into receiving waters. The associated effects of a reduction of surface water quality which could in turn negatively affect the otter population through direct contact with pollutants or a decline in fish prey. These potential impacts could occur to such a degree that the conservation objectives (in respect of otter) of the Wicklow Mountains SAC Qualifying Interest species are undermined.

219 Therefore, (albeit very unlikely) there is potential for the Proposed Scheme to result in significant effects which could have implications for the conservation objectives of Wicklow Mountains SAC as a result of hydrological impacts.

#### 7.3.3.2 Disturbance and displacement impacts

220 No active holts were recorded within the footprint of the Proposed Scheme. A single inactive holt was identified during the field surveys approximately 145m north-west of the Proposed Scheme (Butterfield Avenue / Rathfarnham Road R114 intersection and approximately 145m south-west of Construction Compound TR3 on Springfield Avenue), on the bank of the Owenadoher River.

221 Increased human presence and / or noise and vibration associated with construction works at the Butterfield Avenue / Rathfarnham R114 Road intersection may result in increased levels of disturbance at the CBC1012M003 holt and temporarily displace otter. Construction activities in the vicinity of the Owenadoher River will include general road works and a retaining wall near Butterfield Avenue / Rathfarnham R118 Road junction. Noise levels produced by these general construction works will be between 59dB at 100m and 55dB at 150m from the Proposed Scheme (see Table 16 and accompanying EIAR Chapter 9 (Noise & Vibration)). Noise levels produced by the boundary treatment works (retaining wall) will be between 60dB at 100m and 56dB at 150m from the Proposed Scheme (see Table 16 and accompanying EIAR Chapter 9 (Noise & Vibration)). According to information contained within the accompanying EIAR Chapter 9 (Noise & Vibration), the predicted noise levels during construction, within 100m to 150m of the construction works at the Butterfield Avenue / Rathfarnham R114 Road intersection, are modelled as being similar to baseline noise levels at this location (e.g. in the region of 60dB). Therefore, given that otter within the urban- suburban Dublin area are habituated to similar consistent background noise levels, no significant disturbance/ displacement effects on breeding/ resting otter in this location, are predicted.

222 Construction compound TR3 is located approximately 145m north-east of the inactive holt recorded at the Owenadoher River and activities here will include site traffic, storage, offices and material handlings, etc.,

with noise levels generated predicted to be approximately 54dB at a distance of 150m of the Construction Compound. The existing Woodview Cottages housing development is currently situated between the Owenadoher River and the proposed compound, providing screening between the Owenadoher River and the Construction Compound TR3, therefore any disturbance impact is likely to be further diminished. According to information contained within the Noise & Vibration chapter (Chapter 9), the predicted noise levels during construction, within 100m of the construction compound, are modelled as being similar to baseline noise levels at this location (e.g., in the region of 60dB). Therefore, given that otter within the urban - suburban Dublin area are habituated to similar consistent background noise levels, no significant disturbance/ displacement effects on breeding/ resting otter in this location, are predicted.

223 Otter are known to tolerate human disturbance under certain circumstances (Bailey and Rochford 2006; The Environment Agency 2010; Irish Wildlife Trust 2012). There are numerous records of otter within the urban Dublin area, which suggests a relatively high level of habituation to human disturbance and noise by otter (Macklin *et al.,* 2019). As construction works will typically be undertaken during normal daylight working hours and otter are generally nocturnal in habit, and that otter can (in many circumstances) tolerate high levels of human presence and disturbance, displacement of otter from their habitat is extremely unlikely to affect the local otter population. Therefore, disturbance during construction is not likely to have a significant effect on the species' conservation objectives and will not result in a significant effect on otter as a result of disturbance / displacement impacts.

#### 7.3.3.3 Summary

224 Table 14 presents a summary of the potential impacts of the Proposed Scheme on the Qualifying Interests of Wicklow Mountains SAC, and how these impacts relate to affecting the site's conservation objectives.

***Table 14: Potential Impacts / Effects on the Conservation Objectives of Wicklow Mountains SAC***

| **Conservation Objectives**<br>**Attribute / Measure / Target** | **Potential Impacts Requiring Mitigation?** | **Are mitigation measures required?** | **Residual Impacts?** |
|---|---|---|---|
| **Wicklow Mountains SAC[26]** | | | |
| **Otter**<br>To maintain the favourable conservation condition of Otter in Wicklow Mountains SAC, which is defined as follows: | | | |
| Distribution / Percentage positive survey sites / No significant decline | Yes<br>In a worst-case scenario, an accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution | Yes<br>The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | No |
| Extent of terrestrial habitat / Hectares / No significant decline. | | | |
| Extent of freshwater (river) habitat / Kilometres / No significant decline. | | | |
| Extent of freshwater (lake) habitat / Hectare / s No significant decline | | | |
| Couching sites and holts / Number / No significant decline | | | |
| Fish biomass available / Kilograms / No significant decline | | | |

[26] As the Annex I Qualifying Interest habitats for which this SAC has been designated are not at risk of effects arising from the Proposed Scheme, they have not been included in the summary table.

| | | | |
|---|---|---|---|
| Barriers to connectivity / Number / No significant increase | sources, could potentially affect the quality (vegetation structure and composition) and area / distribution of intertidal / coastal habitats<br><br>Noise, vibration and increased works, with the proposed construction, particularly if required at night-time (around existing bridges crossing watercourses) which otter utilise could potentially result in negative impacts to QI otter populations through disturbance/displacement impacts. | The mitigation measures described in Section 7.3.4 to manage a range of potential disturbance risk will minimise the potential impacts to QI otter population. | |

### *7.3.4 Mitigation Measures*

225 This section presents the mitigation measures that will be implemented during Construction and Operation to avoid or reduce the potential impacts of the Proposed Scheme on Wicklow Mountains SAC. All of the mitigation measures will be implemented in full and are best practice, and tried and tested, effective control measures to protect the receiving environment.

Measures to Protect Surface Water Quality during Construction

226 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during Construction of the Proposed Scheme.

Measures to Protect Surface Water Quality during Operation

227 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during Operation of the Proposed Scheme.

Measures to Reduce the Loss of Breeding / Resting Sites

228 The otter holt within the Owenadoher River will not be lost as a result of the Proposed Scheme.

229 Although there were no otter holts recorded within the footprint of the Proposed Scheme during field surveys, otter could potentially establish new holt or couch sites within the footprint of the Proposed Scheme. The NTA will ensure that a confirmatory pre-construction check of all suitable otter habitat will be completed by a suitably qualified ecologist within 12 months prior to any construction works commencing.

230 The presence of any new holt / couch sites will be treated and / or protected in accordance with the Guidelines for the Treatment of Otters prior to the Construction of National Road Schemes (NRA 2006b).

Measures to Reduce- Disturbance / displacement

231 Although the otter holt at the Owenadoher River was not active during 2020 surveys, otter could potentially re-establish at this site during the Construction Phase of the Proposed Scheme.

232 As detailed above prior to construction works commencing, the NTA will ensure that a pre-construction survey of all suitable otter habitat will be undertaken by a suitably qualified ecologist within 12months prior to any construction works commencing, in accordance with Guidelines for the Treatment of Otters Prior to the Construction of National Road Schemes (NRA 2006b).

Measures to Prevent Injury / Mortality Impacts

233 To protect otters from indirect harm during construction, where practicable open excavations will be covered when not in use and backfilled as soon as practicable by the appointed contractor.

234 Excavations will also be covered at night, where practicable, and any deep excavations which must be left open will have appropriate egress ramps in place to allow mammals to safely exit should they fall in.

235 Fencing requirements as per the *Guidelines for the Treatment of Otters Prior to the Construction of National Road Schemes* (NRA, 2006b) will be erected around the Construction Compounds and other working areas which are in close proximity to significant watercourses and have suitable roaming territory for otter.

Measures to Reduce Lighting Impacts

236 Security lighting at the Construction Compounds, particularly TR1 or TR6, or in active works areas adjacent to the River Dodder and Grand Canal with known otter activity will be designed in conjunction with a suitably qualified ecologist to minimise light spill. Similarly, where any new or amended lighting design is required at a watercourse crossing, it should be cognisant of downward light-spill onto watercourses. Measures to reduce light spill may include the following:

- The use of sensor / timer triggered lighting;
- LED luminaires should be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability;

- Column heights should be considered to minimise light spill; and,
- Accessories such as baffles, hoods or louvres can be used to reduce light spill and direct it only where needed.

#### *7.3.5 Residual Impacts*

237 With the effective implementation of appropriate mitigation measures identified in this NIS, the Proposed Scheme poses no risk of affecting the conservation objectives, or the favourable conservation condition, of the Qualifying Interest species of Wicklow Mountains SAC (the remaining Qualifying Interest habitats being upstream and of sufficient distance removed that no impact is predicted), and there are therefore, no residual direct or indirect impacts associated with the Proposed Scheme that could adversely affect the integrity of Wicklow Mountains SAC. As is confirmed by the Water Framework Directive Assessment for the Proposed Scheme (refer to Appendix V), the proposed Scheme will not cause a deterioration in status in any water body, will not prevent any water body from achieving good ecological status or good ecological potential, and it can be concluded that the Proposed Scheme complies with all requirements of the WFD.

#### *7.3.6 Conclusion of Assessment for Wicklow Mountains SAC*

238 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the Qualifying Interests of Wicklow Mountains SAC, the potential impacts and mitigation measures, and whether or not the predicted impacts and mitigation measures would affect the conservation objectives that support the conservation condition of the Qualifying Interests, it has been concluded that the Proposed Scheme does not pose a risk of adversely affecting (either directly or indirectly) the integrity of Wicklow Mountains SAC.

### **7.4 South Dublin Bay and River Tolka Estuary SPA [004024]**

#### *7.4.1 Ecological Baseline Description for South Dublin Bay and River Tolka Estuary SPA*

239 The Natura 2000 Standard Data Form (NPWS, 2020c) states that the SPA possesses extensive intertidal flats, part of which are designated as South Dublin Bay SAC, and which supports wintering waterfowl as part of the wider Dublin Bay population. The site also supports an internationally important population of light-bellied Brent geese, feeding on the stands of eelgrass *Zostera*. It hosts nationally important numbers of six species, is an important site for wintering gulls and is an autumn roosting site for a significant number of terns. The main threat to the site is land reclamation, with other threats including oil pollution from Dublin Port, commercial bait digging and disturbance by walkers and dogs.

#### *7.4.2 Special Conservation Interests and Conservation Objectives of South Dublin Bay and River Tolka Estuary SPA*

240 The Special Conservation Interests of South Dublin Bay and River Tolka Estuary SPA, and the overall conservation objective, are listed in Table 15.

***Table 15: Special Conservation Interests and Conservation Objectives of South Dublin Bay and River Tolka Estuary SPA***

| Special Conservation Interest(s) | Conservation Objective(s) |
|---|---|
| **South Dublin Bay and River Tolka Estuary SPA [004024]**<br>A046 Light-bellied Brent Goose *Branta bernicla hrota*<br>A130 Oystercatcher *Haematopus ostralegus*<br>A137 Ringed Plover *Charadrius hiaticula*<br>A141 Grey Plover *Pluvialis squatarola*<br>A143 Knot *Calidris canutus*<br>A144 Sanderling *Calidris alba*<br>A149 Dunlin *Calidris alpina*<br>A157 Bar-tailed Godwit *Limosa lapponica*<br>A162 Redshank *Tringa totanus*<br>A179 Black-headed Gull *Chroicocephalus ridibundus*<br>A192 Roseate Tern *Sterna dougallii*<br>A193 Common Tern *Sterna hirundo*<br>A194 Arctic Tern *Sterna paradisaea*<br>A999 Wetland and Waterbirds<br><br>*S.I. No. 212 / 2010 - European Communities (Conservation of Wild Birds (South Dublin Bay and River Tolka Estuary Special Protection Area 004024)) Regulations 2010.*<br>NPWS (2015a) *Conservation Objectives: South Dublin Bay and River Tolka Estuary SPA 004024*. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | To maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA<br><br>To maintain the favourable conservation condition of the wetland habitat in South Dublin Bay and River Tolka Estuary SPA as a resource for the regularly occurring migratory waterbirds that utilise it |

241 In conjunction with considering the generic conservation objective for this SPA "To maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.", the site-specific conservation objectives document for South Dublin Bay and River Tolka Estuary SPA also informed this assessment.

242 The site-specific conservation objectives document sets out the attributes, measures and targets that define the favourable conservation condition of the Special Conservation Interests within the European site. Affecting the conservation condition of the Special Conservation Interests is deemed to constitute an adverse effect on the integrity of a European site. The specific attributes and targets used to define the conservation objectives of the Special Conservation Interests of South Dublin Bay and River Tolka Estuary SPA are presented in Section 7.4.3.5.

### *7.4.3 Examination and Analysis of Potential Direct and Indirect Impacts*

243 The direct and / or indirect impacts by which the Proposed Scheme could (in the absence of mitigation measures) potentially affect the conservation objective attributes and targets supporting the conservation condition of the Special Conservation Interests of South Dublin Bay and River Tolka Estuary SPA, are:

- Habitat degradation / effects on QI / SCI species as a result of hydrological impacts;
- Habitat loss / fragmentation;
- Habitat degradation as a result of introducing / spreading non-native invasive species; and;
- Disturbance and displacement impacts.

#### 7.4.3.1 Habitat degradation / effects on QI / SCI species as a result of hydrological impacts

244 The release of contaminated surface water runoff and / or an accidental spillage or pollution event into any surface water features during construction, or operation, has the potential to affect water quality in the receiving aquatic environment. Such a pollution event may include: the release of sediment into receiving waters and the subsequent increase in mobilised suspended solids; and the accidental spillage and / or leaks of contaminants into receiving waters. The associated effects of a reduction of surface water quality could potentially extend for a considerable distance downstream of the location of the accidental pollution event or the discharge. The Proposed Scheme is hydrologically connected to Dublin Bay via the Owenadoher River, River Dodder, the Grand Canal as well as the Liffey Estuary Upper Lower as well as a network of interconnecting and established surface or combined sewer / surface water pipes. Therefore, there is potential for the Proposed Scheme to result in significant effects which could have implications for the conservation objectives of South Dublin Bay and River Tolka Estuary SPA as a result of hydrological impacts.

245 Therefore, (albeit unlikely) this reduction in water quality (either alone or in combination with other pressures on water quality) could result in the degradation of sensitive habitats present within this European site, which in turn would negatively affect the SCI bird species that rely upon these habitats as foraging and / or roosting habitat. It could also negatively affect the quantity and quality of prey available to Special Conservation Interest bird species. These potential impacts could occur to such a degree that they result in significant effects which could have implications for the conservation objectives of South Dublin Bay and River Tolka Estuary SPA.

#### 7.4.3.2 Habitat loss / fragmentation

246 South Dublin Bay and River Tolka Estuary SPA is designated for wintering Special Conservation Interest species that are known to forage and / or roost at inland sites across Dublin, such as amenity grassland playing pitches. These species include light-bellied Brent goose, black-headed gull, redshank and oystercatcher. There are three areas of suitable foraging, and / or roosting habitat for these species within the footprint of the Proposed Scheme, composing grassland habitats (CBC1012WB001, CBC1012WB002, and CBC1012WB003.

247 The Proposed Scheme will result in the short-term loss of approximately 0.455ha in total of largely GA2 habitat suitable to support breeding gull and wintering bird species (e.g., light- bellied Brent goose) as a result of the installation of Construction Compound TR3. The other areas of open territory where wintering bird surveys were undertaken will not directly impact wintering birds as they are small in extent and outside the Proposed Scheme Boundary (CBC1012WB002) or the territory in them that is being lost is not suitable to support wintering bird species (CBC1012WB003).

248 There is no potential for impacts to occur on inland feeding Special Conservation Interest populations associated with South Dublin Bay and River Tolka Estuary SPA, in light of their conservation objectives, as a consequence of habitat loss / fragmentation of inland feeding / roosting sites due to the following reasons:

- According to the data collected during wintering bird surveys undertaken during both the 2020-2021 and 2021-2022 wintering bird seasons, none of the sites to be lost are significant inland foraging resource for wintering bird species, given the low numbers of wintering bird species recorded, with respect to their national and international populations. Therefore, the temporary loss of this site during the construction of the Proposed Scheme will not result in any likely significant effect on the conservation status of any wintering bird species or undermine the conservation objectives of any SPAs in the vicinity which are designated for this species;
- The low frequency of occurrence of these SCI bird species recorded on lands located within the footprint of the Proposed Scheme, suggests that these species do not regularly use or rely upon these lands as foraging and/or roosting habitat, and are likely to use other suitable sites available in the wider area on a similar or more regular basis; and

- Landtake in these areas is temporary in nature and will be returned to its original state during the Operational Phase of the Proposed Scheme.

#### 7.4.3.3 Habitat degradation as a result of introducing / spreading non-native invasive species

249 Ten areas of Japanese knotweed, Himalayan balsam and three-cornered garlic , species listed on the Third Schedule of the (Birds and Natural Habitats) Regulations, are present in close proximity to the Proposed Scheme, particularly along the River Dodder at Pearse Bridge in Rathfarnham During construction and / or routine maintenance / management work, this species could potentially, albeit unlikely, spread or be introduced to terrestrial habitats located within downstream European sites via surface water features.

250 The introduction and / or spread of this non-native invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. This species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. This in turn could undermine the conservation objectives of this European site. The Proposed Scheme is hydrologically connected to the Owenadoher River, River Dodder, the Grand Canal as well as the Liffey Estuary Upper and Lower as well as a network of interconnecting and established surface or combined sewer / surface water pipes. Therefore, (albeit unlikely) there is potential for the Proposed Scheme to result in significant effects which could have implications for the conservation objectives of South Dublin Bay and River Tolka Estuary SPA as a result of the introduction of non-native invasive species.

#### 7.4.3.4 Disturbance and displacement impacts

251 A temporary and / or permanent increase in noise, vibration and / or human activity levels during the construction and / or operation of the Proposed Scheme could result in the disturbance to and / or displacement of SCI bird species present within the footprint and / or the vicinity of the Proposed Scheme. Potential for such disturbance effects would not be expected to extend beyond a distance of approximately 300m, as noise levels associated with general construction activities would attenuate to close to background levels at that distance and beyond. The Operational Phase is not deemed to result in significant changes to existing noise levels due to the urban locality of the Proposed Scheme as an existing transport route. Table 16 provides the indicative Construction noise calculation associated with different Construction activities of the Proposed Scheme at varying distances.

***Table 16: Indicative Construction Noise Calculations at Varying Distances***

| **Activity** | **Predicted CNL at Stated Distance from Edge of Works (dB $L_{Aeq,12hr}$ or $L_{Aeq,4hr}$)** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | **10m** | **15m** | **20m** | **30m** | **50m** | **75m** | **100m** | **150m** | **250m** |
| General Road works | 79 | 76 | 73 | 69 | 65 | 61 | 59 | 55 | 51 |
| Road Widening and Utility Diversion | 83 | 80 | 77 | 73 | 69 | 65 | 63 | 59 | 55 |
| Construction Compounds | 78 | 75 | 72 | 68 | 64 | 60 | 58 | 54 | 50 |
| Boundary wall construction | 80 | 77 | 74 | 70 | 66 | 62 | 60 | 56 | 49 |
| Urban Realm Landscaping | 79 | 76 | 73 | 69 | 65 | 61 | 59 | 55 | 51 |

252 The South Dublin Bay and River Tolka Estuary SPA is designated for wintering Special Conservation Interest species that are known to forage and / or roost at inland sites across Dublin, such as amenity grassland playing pitches. These species include light-bellied Brent goose, oystercatcher and black-headed gull. There are areas of suitable foraging, and / or roosting habitat for these species within the footprint of the Proposed Scheme.

253 As records of Special Conservation Interest bird species associated with the South Dublin Bay and River Tolka Estuary SPA have been returned from the desk study in the vicinity of the Proposed Scheme (i.e. light-bellied Brent goose and black-headed gull), it is likely that Special Conservation Interest bird species associated with the South Dublin Bay and River Tolka Estuary SPA currently utilise suitable lands in the wider area. However, no significant effects will occur on any Special Conservation Interest bird species populations of South Dublin Bay and River Tolka Estuary SPA, in light of their conservation objectives, as a consequence of the disturbance and / or displacement from inland feeding / roosting sites due to increased levels of disturbance due to the following reasons:

- For the majority of construction activities, any wintering birds present at a distance of 50m or more from the edge of works (where noise levels will be between 50dB and 70dB) would experience only a moderate effect / level of response, i.e., birds becoming alert and some behavioural changes (e.g., reduced feeding activity), but birds would be expected to habituate to noise levels within this range. Within a 50m distance from the edge of works (where construction noise levels will be above 70dB) birds would be likely to move out of the affected zone, or leave the site altogether. Therefore, the worst-case exclusion or displacement of birds due to noise impacts during construction works would be for birds using the zone within 50m of the edge of construction works only, with birds likely to only experience a moderate effect / level of response from areas beyond this 30m distance as a result of noise impacts[27];
- The low numbers of species recorded using the sites surveyed within the footprint of the Proposed Scheme (e.g., CBC1012WB001, CBC1012WB002 and CBC1012WB003), during field surveys undertaken in both the 2020-2021 and 2021-2022 winter seasons, which suggests that these species do not regularly use or rely upon these lands as foraging and / or roosting habitat, and are likely to use other suitable sites available in the wider area on a similar or more regular basis;
- The availability of large areas of suitable foraging and / or roosting habitat for these Special Conservation Interest bird species in the wider locality of the Proposed Scheme, including those in closer proximity to nearby SPAs. These include other similar public amenity grassland parks and sports pitches such as the documented *ex-situ* wintering bird site at Tymon Park as well as Templeogue College, Eammon Ceannt Park, St Marys College RFC and Leinster Cricket Ground; and,
- The short-term nature of any disturbance related impacts associated with the construction of the Proposed Scheme, which is expected to last for 24 months. Following the completion of construction, disturbance levels will over time return to baseline conditions and as a result suitable lands will become available again as foraging and / or roosting habitat for these Special Conservation Interest species.

#### 7.4.3.5 Summary

254 Table 17 presents a summary of the potential impacts of the Proposed Scheme on the Special Conservation Interests of South Dublin Bay and River Tolka Estuary SPA, and how these impacts relate to affecting the site's conservation objectives.

[27] Based on current understanding of construction related noise disturbance to wintering waterbirds is based on the research presented in Cutts *et al*. (2009) and Wright *et al*. (2010).

***Table 17: Potential Impacts / Effects on the Conservation Objectives of South Dublin Bay and River Tolka Estuary SPA***

| **Conservation Objectives**<br>**Attribute / Measure / Target** | **Potential Impacts Requiring Mitigation?** | **Are mitigation measures required?** | **Residual Impacts?** |
|---|---|---|---|
| **South Dublin Bay and River Tolka Estuary SPA** | | | |
| **Light-bellied Brent Goose (*Branta bernicla hrota*) [A046], Oystercatcher (*Haematopus ostralegus*) [A130], Ringed Plover (*Charadrius hiaticula*) [A137], Knot (*Calidris canutus*) [A143], Sanderling (*Calidris alba*) [A144], Dunlin (*Calidris alpina alpina*) [A149], Bar-tailed Godwit (*Limosa lapponica*) [A157], Redshank (*Tringa totanus*) [A162], Black-headed Gull (*Chroicocephalus ridibundus*) [A179]**<br>**Note: Grey Plover (*Pluvialis squatarola*) [A141] is proposed for removal from the list of SCIs for the site so no site-specific conservation objective is included for the species**<br>To maintain the favourable conservation condition of the special conservation interests of the SPA, which is defined as follows: | | | |
| Population trend / Percentage change / Long term population trend stable or increasing<br><br>Distribution / Range, timing and intensity of use of areas / No significant decrease in the range, timing and intensity of use of areas by all of the above-named species, other than that occurring from natural patterns of variation | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quality the of intertidal / coastal habitats that support the Special Conservation Interest bird species of the SPA. This could potentially affect the use of habitat areas by birds and have long-term effects on the SPA populations.<br><br>The introduction and / or spread of non-native invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. This | Yes<br>The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme.<br><br>The mitigation measures described in Section 7.1.4 will prevent the introduction and / or spread of non-native invasive species to downstream European sites during construction and operation of the Proposed Scheme.. | No |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| | in turn could affect the use of habitat areas by birds and have long-term effects on the SPA populations. | | |
| **Roseate Tern (*Sterna dougallii*) [A192]**<br>To maintain the favourable conservation condition of the special conservation interests of the SPA, which is defined as follows: | | | |
| Passage population: individuals / Number / No significant decline | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution | Yes<br>The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during | No |
| Distribution: roosting areas / Number; location; area (hectares) / No significant decline | | | |
| Prey biomass available / Kilogrammes / No significant decline | | | |
| Barriers to connectivity / Number; location; shape; area (hectares) / No significant increase | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| Disturbance at roosting site / Level of impact / Human activities should occur at levels that do not adversely affect the numbers of roseate tern among the post-breeding aggregation of terns | sources, could potentially affect the quantity and quality of prey fish and the quality the of intertidal / coastal habitats that support the Special Conservation Interest bird species of the SPA. This could potentially affect the use of habitat areas by birds and have long-term effects on the SPA populations.<br><br>The introduction and / or spread of non-native invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. This in turn could affect the use of habitat areas by birds and have long-term effects on the SPA populations. | construction and operation of the Proposed Scheme.<br><br>The mitigation measures described in Section 7.1.4 will prevent the introduction and / or spread of non-native invasive species to downstream European sites during construction and operation of the Proposed Scheme. | |
| **Common Tern (*Sterna hirundo*) [A193]**<br>To maintain the favourable conservation condition of the special conservation interests of the SPA, which is defined as follows: | | | |
| Breeding population abundance: apparently occupied nests (AONs) / Number / No significant decline | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the | Yes<br>The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | No |
| Productivity rate: fledged young per breeding pair / Mean number / No significant decline | | | |
| Passage population: individuals / Number / No significant decline | | | |
| Distribution: breeding colonies / Number; location; area (Hectares) / No significant decline | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| Distribution: roosting areas / Number; location; area (Hectares) / No significant decline | quantity and quality of prey fish and the quality the of intertidal / coastal habitats that support the Special Conservation Interest bird species of the SPA. This could potentially affect the use of habitat areas by birds and have long-term effects on the SPA populations.<br><br>The introduction and / or spread of non-native invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats permanently or regularly inundated by seawater. This in turn could affect the use of habitat areas by birds and have long-term effects on the SPA populations. | The mitigation measures described in Section 7.1.4 will prevent the introduction and / or spread of non-native invasive species to downstream European sites during construction and operation of the Proposed Scheme. | |
| Prey biomass available / Kilogrammes / No significant decline | | | |
| Barriers to connectivity / Number; location; shape; area (hectares) / No significant increase | | | |
| Disturbance at breeding site / Level of impact / Human activities should occur at levels that do not adversely affect the breeding common tern population | | | |
| Disturbance at roosting site / Level of impact / Human activities should occur at levels that do not adversely affect the numbers of common tern among the post-breeding aggregation of terns | | | |
| **Arctic Tern (*Sterna paradisaea*) [A194]**<br>To maintain the favourable conservation condition of the special conservation interests of the SPA, which is defined as follows: | | | |
| Passage population / Number of individuals / No significant decline | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution | Yes<br>The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during | No |
| Distribution: roosting areas / Number; location; area (hectares) / No significant decline | | | |
| Prey biomass available / Kilogrammes / No significant decline | | | |
| Barriers to connectivity / Number; location; shape; area (hectares) / No significant increase | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| Disturbance at roosting site / Level of impact / Human activities should occur at levels that do not adversely affect the numbers of Arctic tern among the post-breeding aggregation of terns | sources, could potentially affect the quantity and quality of prey fish and the quality of intertidal / coastal habitats that support the Special Conservation Interest bird species of the SPA. This could potentially affect the use of habitat areas by birds and have long-term effects on the SPA populations.<br><br>The introduction and / or spread of non-native invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. This in turn could affect the use of habitat areas by birds and have long-term effects on the SPA populations. | construction and operation of the Proposed Scheme.<br><br>The mitigation measures described in Section 7.1.4 will prevent the introduction and / or spread of non-native invasive species to downstream European sites during construction and operation of the Proposed Scheme. | |
| **Wetlands [A999]**<br>To maintain the favourable conservation condition of wetland habitats within the SPA, which is defined as follows: | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| Habitat area / Hectares / The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 2,192ha, other than that occurring from natural patterns of variation | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quality the of intertidal / coastal habitats that support the Special Conservation Interest bird species of the SPA. This could potentially affect the use of habitat areas by birds and have long-term effects on the SPA populations.<br><br>The introduction and / or spread of non-native invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. This in turn could affect the use of habitat areas by birds and have long-term effects on the SPA populations. | Yes<br>The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme.<br><br>The mitigation measures described in Section 7.1.4 will prevent the introduction and / or spread of non-native invasive species to downstream European sites during construction and operation of the Proposed Scheme. | No |

### *7.4.4 Mitigation Measures*

255 This Section presents the mitigation measures that will be implemented during the Construction and Operation Phases to avoid or reduce the potential impacts of the Proposed Scheme on South Dublin Bay and River Tolka Estuary SPA. All of the mitigation measures will be implemented in full and are best practice, and tried and tested, effective control measures to protect the receiving environment.

Measures to Protect Surface Water Quality during Construction

256 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during Construction of the Proposed Scheme.

Measures to Protect Surface Water Quality during Operation

257 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during Operation of the Proposed Scheme.

Measures to Prevent the Spread of Non-Native Invasive Species to Downstream European Sites

258 The mitigation measures presented above in Section 7.1.4 will prevent the spread of non-native invasive species to downstream European sites.

### *7.4.5 Residual Impacts*

259 With the effective implementation of appropriate mitigation measures identified in this NIS, the Proposed Scheme poses no risk of affecting the conservation objectives, or the favourable conservation condition, of the Special Conservation Interests and supporting wetland habitat of South Dublin Bay and River Tolka Estuary SPA, and there are therefore, no residual direct or indirect impacts associated with the Proposed Scheme that could adversely affect the integrity of South Dublin Bay and River Tolka Estuary SPA. As is confirmed by the Water Framework Directive Assessment for the Proposed Scheme (refer to Appendix V), the proposed Scheme will not cause a deterioration in status in any water body, will not prevent any water body from achieving good ecological status or good ecological potential, and it can be concluded that the Proposed Scheme complies with all requirements of the WFD.

### *7.4.6 Conclusion of Assessment for South Dublin Bay and River Tolka Estuary SPA*

260 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the Special Conservation Interests of South Dublin Bay and River Tolka Estuary SPA, the potential impacts, and whether or not the predicted impacts and mitigation measures and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the Special Conservation Interests, it is concluded that the Proposed Scheme does not pose a risk of adversely affecting (either directly or indirectly) the integrity of South Dublin Bay and River Tolka Estuary SPA.

## **7.5 North Bull Island SPA [004006]**

### *7.5.1 Ecological Baseline Description for North Bull Island SPA*

261 The Natura 2000 Standard Data Form (NPWS, 2020d) lists the SPA as one of the top ten sites in the country for wintering waterfowl. It provides important feeding and roosting habitat for bird species listed as Special Conservation Interests for the site and supports internationally important populations of light-bellied Brent goose and bar-tailed godwit. The quality of the estuarine habitats in the SPA are considered to be very good, part of which are designated as North Dublin Bay SAC. There are no serious imminent threats to the wintering birds. Threats to the site include oil pollution from Dublin Port along with localised commercial bait digging, disturbance from activities such as sailing, walkers and dogs.

### *7.5.2 Special Conservation Interests and Conservation Objectives of North Bull Island SPA*

262 The Special Conservation Interests of North Bull Island SPA, and the overall conservation objective, are listed Table 18.

***Table 18: Special Conservation Interests and Conservation Objectives of North Bull Island SPA***

| Special Conservation Interest(s) | Conservation Objective(s) |
|---|---|
| **North Bull Island SPA [004006]**<br>A046 Light-bellied Brent Goose *Branta bernicla hrota*<br>A048 Shelduck *Tadorna tadorna*<br>A052 Teal *Anas crecca*<br>A054 Pintail *Anas acuta*<br>A056 Shoveler *Anas clypeata*<br>A130 Oystercatcher *Haematopus ostralegus*<br>A140 Golden Plover *Pluvialis apricaria*<br>A141 Grey Plover *Pluvialis squatarola*<br>A143 Knot *Calidris canutus*<br>A144 Sanderling *Calidris alba*<br>A149 Dunlin *Calidris alpina*<br>A156 Black-tailed Godwit *Limosa limosa*<br>A157 Bar-tailed Godwit *Limosa lapponica*<br>A160 Curlew *Numenius arquata*<br>A162 Redshank *Tringa totanus*<br>A169 Turnstone *Arenaria interpres*<br>A179 Black-headed Gull *Chroicocephalus ridibundus*<br>A999 Wetlands & Waterbirds<br><br>*S.I. No. 211 / 2010 - European Communities (Conservation of Wild Birds (North Bull Island Special Protection Area 004006)) Regulations 2010.*<br>NPWS (2015b) *Conservation Objectives: North Bull Island SPA 004006.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | To maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.<br><br>To maintain the favourable conservation condition of the wetland habitat in North Bull Island SPA as a resource for the regularly occurring migratory waterbirds that utilise it. |

263 In conjunction with considering the generic conservation objective for this SPA "To maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA", the site-specific conservation objectives document for North Bull Island SPA also informed this assessment.

264 The site-specific conservation objectives document sets out the attributes, measures and targets that define the favourable conservation condition of the Special Conservation Interests within the European site. Affecting the conservation condition of the Special Conservation Interests is deemed to constitute an adverse effect on the integrity of a European site. The specific attributes and targets used to define the conservation objectives of the Special Conservation Interests of North Bull Island SPA are presented in Section 7.5.3.5.

### *7.5.3 Examination and Analysis of Potential Direct and Indirect Impacts*

265 The direct and / or indirect impacts by which the Proposed Scheme could (in the absence of mitigation measures) potentially affect the conservation objective attributes and targets supporting the conservation condition of the Special Conservation Interests of North Bull Island SPA, are:

- Habitat degradation / effects on QI / SCI species as a result of hydrological impacts;
- Habitat loss / fragmentation;
- Habitat degradation as a result of introducing / spreading non-native invasive species; and,
- Disturbance and displacement impacts.

#### 7.5.3.1 Habitat degradation / effects on QI / SCI species as a result of hydrological impacts

266 The release of contaminated surface water runoff and / or an accidental spillage or pollution event into any surface water features during construction, or operation, has the potential to affect water quality in the receiving aquatic environment. Such a pollution event may include: the release of sediment into receiving waters and the subsequent increase in mobilised suspended solids; and the accidental spillage and / or leaks of contaminants into receiving waters. The associated effects of a reduction of surface water quality could potentially extend for a considerable distance downstream of the location of the accidental pollution event or the discharge. The Proposed Scheme is hydrologically connected to Dublin Bay via the Owenadoher River, River Dodder, the Grand Canal as well as the Liffey Estuary Upper and Lower as well as a network of interconnecting and established surface or combined sewer / surface water pipes. Therefore, there is potential for the Proposed Scheme to result in significant effects which could have implications for the conservation objectives of North Bull Island SPA as a result of hydrological impacts.

267 Therefore, (albeit unlikely) this reduction in water quality (either alone or in combination with other pressures on water quality) could result in the degradation of sensitive habitats present within these European sites, which in turn would negatively affect the Special Conservation Interest bird species that rely upon these habitats as foraging and / or roosting habitat. It could also negatively affect the quantity and quality of prey available to Special Conservation Interest bird species. These potential impacts could occur to such a degree that they result in significant effects which could have implications for the conservation objectives of North Bull Island SPA.

#### 7.5.3.2 Habitat loss / fragmentation

268 North Bull Island SPA is designated for wintering Special Conservation Interest species that are known to forage and / or roost at inland sites across Dublin, such as amenity grassland playing pitches. These species include light-bellied Brent goose, black-headed gull, redshank, golden plover and oystercatcher. There are three areas of suitable foraging, and / or roosting habitat for these species within the footprint of the Proposed Scheme, composing grassland habitats (CBC1012WB001, CBC1012WB002, and CBC1012WB003.

269 The Proposed Scheme will result in the short-term loss of approximately 0.455ha in total of largely GA2 habitat suitable to support breeding gull and wintering bird species (e.g., light-bellied Brent goose) as a result of the installation of Construction Compound TR3. The other areas of open territory where wintering bird surveys were undertaken will not directly impact wintering birds as they are small in extent and outside the Proposed Scheme Boundary (CBC1012WB002) or the territory in them that is being lost is not suitable to support wintering bird species (CBC1012WB0003).

270 There is no potential for impacts to occur on inland feeding SCI populations associated with North Bull Island SPA, in light of their conservation objectives, as a consequence of habitat loss / fragmentation of inland feeding / roosting sites due to the following reasons:

- According to the data collected during wintering bird surveys undertaken during both the 2020-2021 and 2021-2022 wintering bird seasons, none of the sites to be lost are significant inland foraging resource for wintering bird species, given the low numbers of wintering bird species recorded, with respect to their national and international populations. Therefore, the temporary loss of this site during the Construction of the Proposed Scheme will not result in any likely significant effect on the conservation status of any wintering bird species or undermine the conservation objectives of any SPAs in the vicinity which are designated for this species;

- The low frequency of occurrence of these SCI bird species recorded on lands located within the footprint of the Proposed Scheme, suggests that these species do not regularly use or rely upon these lands as foraging and/or roosting habitat, and are likely to use other suitable sites available in the wider area on a similar or more regular basis; and
- Landtake in these areas is temporary in nature and will be returned to its original state during the Operational Phase of the Proposed Scheme.

#### 7.5.3.3 Habitat degradation as a result of introducing / spreading non-native invasive species

271 Ten areas of Japanese knotweed Himalayan balsam and three-cornered garlic , species listed on the Third Schedule of the (Birds and Natural Habitats) Regulations, are present within, or in close proximity to, the Proposed Scheme, particularly along the River Dodder at Pearse Bridge in Rathfarnham. During construction and / or routine maintenance / management work, this species could potentially, albeit unlikely, spread or be introduced to terrestrial habitats located within downstream European sites via surface water features.

272 The introduction and / or spread of this non-native invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. This species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. This in turn could undermine the conservation objectives of this European site. The Proposed Scheme is hydrologically connected to the Owenadoher River, River Dodder, the Grand Canal as well as the Liffey Estuary Upper and Lower as well as a network of interconnecting and established surface or combined sewer / surface water pipes. Therefore, (albeit unlikely) there is potential for the Proposed Scheme to result in significant effects which could have implications for the conservation objectives of North Bull Island SPA as a result of the introduction of non-native invasive species.

#### 7.5.3.4 Disturbance and displacement impacts

273 A temporary and / or permanent increase in noise, vibration and / or human activity levels during the construction and / or operation of the Proposed Scheme could result in the disturbance to and / or displacement of SCI bird species present within footprint and / or the vicinity of the Proposed Scheme. Potential for such disturbance effects would not be expected to extend beyond a distance of approximately 300m, as noise levels associated with general construction activities would attenuate to close to background levels at that distance and beyond. The Operational Phase is not deemed to result in significant changes to existing noise levels due to the urban locality of the Proposed Scheme as an existing transport route.

274 Table 16 in Section 7.4.3.4 of this NIS provides the predicted construction noise limits associated with different construction activities of the Proposed Scheme.

275 The North Bull Island SPA is designated for wintering Special Conservation Interest species that are known to forage and / or roost at inland sites across Dublin, such as amenity grassland playing pitches. These species include light-bellied Brent goose, golden plover, oystercatcher, curlew *Numenius arquata*, black-headed gull and black-tailed godwit *Limosa limosa*. There are areas of suitable foraging, and / or roosting habitat for these species within the footprint of the Proposed Scheme.

276 As records of Special Conservation Interest bird species associated with the North Bull Island SPA have been returned from the desk study in the vicinity of the Proposed Scheme (i.e., light-bellied Brent goose and black-headed gull), it is likely that Special Conservation Interest bird species associated with North Bull Island SPA currently utilise suitable lands in the wider area. However, no significant effects will occur on any Special Conservation Interest bird species populations of North Bull Island SPA, in light of their conservation objectives, as a consequence of the disturbance and / or displacement from inland feeding / roosting sites due to increased levels of disturbance due to the following reasons:

- For the majority of construction activities, any wintering birds present at a distance of 50m or more from the edge of works (where noise levels will be between 50dB and 70dB) would experience

only a moderate effect / level of response, i.e., birds becoming alert and some behavioural changes (e.g., reduced feeding activity), but birds would be expected to habituate to noise levels within this range. Within a 50m distance from the edge of works (where construction noise levels will be above 70dB) birds would be likely to move out of the affected zone, or leave the site altogether. Therefore the worst-case exclusion or displacement of birds due to noise impacts during construction works would be for birds using the zone within 50m of the edge of construction works only, with birds likely to only experience a moderate effect / level of response from areas beyond this 30m distance as a result of noise impacts[28];

- The low numbers of species recorded using the sites surveyed within the footprint of the Proposed Scheme (e.g., CBC1012WB001, CBC1012WB002 and CBC1012WB003), during field surveys undertaken in both the 2020-2021 and 2021-2022 winter seasons, which suggests that these species do not regularly use or rely upon these lands as foraging and / or roosting habitat, and are likely to use other suitable sites available in the wider area on a similar or more regular basis;
- The availability of large areas of suitable foraging and / or roosting habitat for these Special Conservation Interest bird species in the wider locality of the Proposed Scheme, including those in closer proximity to nearby SPAs. These include other similar public amenity grassland parks and sports pitches such as the documented *ex-situ* wintering bird site at Tymon Park as well as Templeogue College, Eammon Ceannt Park, St Marys College RFC and Leinster Cricket Ground; and
- The short-term nature of any disturbance related impacts associated with the construction of the Proposed Scheme, which is expected to last for 24 months. Following the completion of construction, disturbance levels will over time return to baseline conditions and as a result suitable lands will become available again as foraging and / or roosting habitat for these Special Conservation Interest species.

#### 7.5.3.5 Summary

277 Table 19 presents a summary of the potential impacts of the Proposed Scheme on the Special Conservation Interests of North Bull Island SPA, and how these impacts relate to affecting the site's conservation objectives.

[28] Based on current understanding of construction related noise disturbance to wintering waterbirds is based on the research presented in Cutts *et al*. (2009) and Wright *et al*. (2010).

***Table 19: Potential Impacts / Effects on the Conservation Objectives of North Bull Island SPA***

| **Conservation Objectives**<br>**Attribute / Measure / Target** | **Potential Impacts Requiring Mitigation?** | **Are mitigation measures required?** | **Residual Impacts?** |
|---|---|---|---|
| **North Bull Island SPA** | | | |
| **Light-bellied Brent Goose (*Branta bernicla hrota*) [A046], Shelduck (*Tadorna tadorna*) [A048], Teal (*Anas crecca*) [A052], Pintail (*Anas acuta*) [A054], Shoveler (*Anas clypeata*) [A056], Oystercatcher (*Haematopus ostralegus* ) [A130], Golden Plover (*Pluvialis apricaria*) [A140], Grey Plover (*Pluvialis squatarola*) [A141], Knot (*Calidris canutus*) [A143], Sanderling (*Calidris alba*) [A144], Dunlin (*Calidris alpina alpina*) [A149], Black-tailed Godwit (*Limosa limosa*) [A156], Bar-tailed Godwit (*Limosa lapponica*) [A157], Curlew (*Numenius arquata*) [A160], Redshank (*Tringa totanus*) [A162], Turnstone (*Arenaria interpres*) [A169], Black-headed Gull (*Chroicocephalus ridibundus*) [A179]**<br>To maintain the favourable conservation condition of the special conservation interests of the SPA, which is defined as follows: | | | |
| Population trend / Percentage change / Long term population trend stable or increasing<br><br>Distribution / Range, timing and intensity of use of areas / No significant decrease in the range, timing and intensity of use of areas by all of the above-named species, other than that occurring from natural patterns of variation | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quality the of intertidal / coastal habitats that support the Special Conservation Interest bird species of the SPA. This could potentially affect the use of habitat areas by birds and have long-term effects on the SPA populations.<br><br>The introduction and / or spread of non-native invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated | Yes<br>The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme.<br><br>The mitigation measures described in Section 7.1.4 will prevent the introduction and / or spread of non-native invasive species to downstream European sites during construction and operation of the Proposed Scheme. | No |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| | by seawater. This in turn could affect the use of habitat areas by birds and have long-term effects on the SPA populations. | | |
| **Wetlands [A999]**<br>To maintain the favourable conservation condition of wetland habitats within the SPA, which is defined as follows: | | | |
| Habitat area / Hectares / The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 1,713ha. Other than that occurring from natural patterns of variation | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quality the of intertidal / coastal habitats that support the Special Conservation Interest bird species of the SPA. This could potentially affect the use of habitat areas by birds and have long-term effects on the SPA populations.<br><br>The introduction and / or spread of non-native invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. This in turn could affect the use of habitat areas by birds and | Yes<br>The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme.<br><br>The mitigation measures described in Section 7.1.4 will prevent the introduction and / or spread of non-native invasive species to downstream European sites during construction and operation of the Proposed Scheme. | No |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| | have long-term effects on the SPA populations. | | |

### *7.5.4 Mitigation Measures*

278 This section presents the mitigation measures that will be implemented during Construction and Operation to avoid or reduce the potential impacts of the Proposed Scheme on North Bull Island SPA. All of the mitigation measures will be implemented in full and are best practice, and tried and tested, effective control measures to protect the receiving environment.

Measures to Protect Surface Water Quality during Construction

279 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during Construction of the Proposed Scheme.

Measures to Protect Surface Water Quality during Operation

280 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during Operation of the Proposed Scheme.

Measures to Prevent the Spread of Non-Native Invasive Species to Downstream European Sites

281 The mitigation measures presented above in Section 7.1.4 will prevent the spread of non-native invasive species to downstream European sites.

### *7.5.5 Residual Impacts*

282 With the effective implementation of appropriate mitigation measures identified in this NIS, the Proposed Scheme poses no risk of affecting the conservation objectives, or the favourable conservation condition, of the Special Conservation Interests of North Bull Island SPA, and there are, therefore, no residual direct or indirect impacts associated with the Proposed Scheme that could adversely affect the integrity of North Bull Island SPA. As is confirmed by the Water Framework Directive Assessment for the Proposed Scheme (refer to Appendix V), the proposed Scheme will not cause a deterioration in status in any water body, will not prevent any water body from achieving good ecological status or good ecological potential, and it can be concluded that the Proposed Scheme complies with all requirements of the WFD.

### *7.5.6 Conclusion of Assessment for North Bull Island SPA*

283 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the Special Conservation Interests of North Bull Island SPA, the potential impacts, and mitigation measures and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the Special Conservation Interests, it has been concluded that the Proposed Scheme does not pose a risk of adversely affecting (either directly or indirectly) the integrity of North Bull Island SPA.

## 7.6 Howth Head Coast SPA [004113], Dalkey Islands SPA [004172] and Rockabill SPA [004014]

### *7.6.1 Ecological Baseline Description for Howth Head Coast SPA*

284 The Natura 2000 Standard Data Form (NPWS, 2020e) lists the SPA as a rocky headland on the northern side of Dublin Bay. The site comprises approximately 3km of sea cliff, varying between 60m and 90m in height. Howth Head SPA is of importance to breeding seabirds. This SPA is designated for its population of breeding kittiwake *Rissa tridactyla*. There are also nationally important populations of breeding razorbill *Alca torda* and black guillemot *Cepphus grylle*, and a regionally important population of common guillemot *Uria aalge*. The cliffs also support a breeding pair of peregrine falcon, a species listed on Annex I of the EU Birds Directive. Threats to the site include walking, horse-riding and non-motorised vehicles as well as fire and fire suppression.

### *7.6.2 Ecological Baseline Description for Dalkey Islands SPA*

285 The Natura 2000 Standard Data Form (NPWS, 2020f) lists the site as an important site for both breeding and staging terns. This SPA is designated for breeding terns and there is a well-established colony of common tern *Sterna hirundo* and smaller numbers of Arctic tern *Sterna paradisaea* and roseate tern *Sterna dougallii*. The site along with other parts of south Dublin Bay are used by the three tern species as a major post-breeding / pre-migration autumn roost area. The site also has breeding great black-backed gull *Larus marinus*, shelduck *Tadorna tadorna* and oystercatcher *Haematopus ostralegus*. The site is known to be frequented in winter by significant numbers of turnstone *Arenaria interpres* and purple sandpiper *Calidris maritima.* Threats to the site include urbanisation and human habitation, human intrusions and disturbances, and agriculture.

### *7.6.3 Ecological Baseline Description for Rockabill SPA*

286 The Natura 2000 Standard Data Form (NPWS, 2020g) lists the site as an internationally tern colony. It supports the largest population of roseate tern *Sterna dougallii* in north-west Europe and the largest colony of common tern in the country, as well as a significant colony of Arctic tern. With management for the benefit of terns, numbers of all three species have been steadily increasing since 1989. Rockabill also supports a nationally important population of black guillemot and a small colony of kittiwake.

### *7.6.4 Special Conservation Interests and Conservation Objectives of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA*

287 The Special Conservation Interests of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA, and the overall conservation objective, are listed in Table 20.

***Table 20: Special Conservation Interests and Conservation Objectives of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA***

| Special Conservation Interest(s) | Conservation Objective(s) |
|---|---|
| **Howth Head Coast SPA [004113]**<br>A188 Kittiwake *Rissa tridactyla*<br><br>*S.I. No. 185 / 2012 - European Communities (Conservation of Wild Birds (Howth Head Coast Special Protection Area 004113)) Regulations 2012.*<br>NPWS (2022c) *Conservation objectives for Howth Head Coast SPA [004113].* First Order Site-specific Conservation Objectives. Version 1. Department of Housing, Local Government and Heritage. | To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA. |
| **Dalkey Islands SPA [004172]**<br>A192 Roseate Tern *Sterna dougallii* | |

| Special Conservation Interest(s) | Conservation Objective(s) |
|---|---|
| A193 Common Tern *Sterna hirundo*<br>A194 Arctic Tern *Sterna paradisaea*<br><br>*S.I. No. 238 / 2010 - European Communities (Conservation of Wild Birds (Dalkey Islands Special Protection Area 004172)) Regulations 2010*<br>NPWS (2022a) *Conservation objectives for Dalkey Islands SPA [004172].* First Order Site-specific Conservation Objectives. Version 1. Department of Housing, Local Government and Heritage. | To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA. |
| **Rockabill SPA [004014]**<br>A148 Purple Sandpiper *Calidris maritima*<br>A192 Roseate Tern *Sterna dougallii*<br>A193 Common Tern *Sterna hirundo*<br>A194 Arctic Tern *Sterna paradisaea*<br><br>*S.I. No. 94 / 2012 - European Communities (Conservation of Wild Birds (Rockabill Special Protection Area 004014)) Regulations 2012.*<br>NPWS (2013i) *Conservation Objectives: Rockabill SPA 004014.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | To maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA. |

288 In conjunction with considering the generic conservation objective for these SPAs "To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.", the site-specific conservation objectives documents for several European sites designated for similar SCI bird species to that of Rockabill SPA also informed this assessment. These European sites are identified in Table 21.

289 The site-specific conservation objectives document sets out the attributes, measures and targets that define the favourable conservation condition of the Special Conservation Interests within the European site. Affecting the conservation condition of the Special Conservation Interests is deemed to constitute an adverse effect on the integrity of a European site. The specific attributes and targets used to define the conservation objectives of the Special Conservation Interests of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA are presented in Section 7.6.5.2.

### *7.6.5 Examination and Analysis of Potential Direct and Indirect Impacts*

290 The direct and / or indirect impacts by which the Proposed Scheme could (in the absence of mitigation measures) potentially affect the conservation objective attributes and targets supporting the conservation condition of the Special Conservation Interests of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA is:

- Habitat degradation / effects on SCI species as a result of hydrological impacts.

#### 7.6.5.1 Habitat degradation / effects on SCI species as a result of hydrological impacts

291 The release of contaminated surface water runoff and / or an accidental spillage or pollution event into any surface water features during construction, or operation, has the potential to affect water quality in the receiving aquatic environment. Such a pollution event may include: the release of sediment into receiving waters and the subsequent increase in mobilised suspended solids; and the accidental spillage and / or leaks of contaminants into receiving waters. The associated effects of a reduction of surface water quality could potentially extend for a considerable distance downstream of the location of the accidental pollution event or the discharge. The Proposed Scheme is hydrologically connected to Dublin Bay via the

Owenadoher River, River Dodder, the Grand Canal as well as the Liffey Estuary Upper and Lower as well as a network of interconnecting and established surface or combined sewer / surface water pipes.

292 Therefore, (albeit unlikely) this reduction in water quality (either alone or in combination with other pressures on water quality) could result in the degradation of sensitive habitats present within Dublin Bay. As a worst-case scenario there is potential to affect mobile Special Conservation Interest bird species that commute, forage and loaf in Dublin Bay. It could also negatively affect the quantity and quality of prey available to Special Conservation Interest bird species. These potential impacts could occur to such a degree that they result in significant effects which could have implications for the conservation objectives of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA.

#### 7.6.5.2 Summary

293 Table 21 presents a summary of the potential impacts of the Proposed Scheme on the Special Conservation Interests of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA, and how these impacts relate to affecting the site's conservation objectives.

***Table 21: Potential Impacts / Effects on the Conservation Objectives of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA***

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| **Howth Head Coast SPA** | | | |
| **Kittiwake [A188]**<br>There is no site-specific conservation objectives document available for this SPA. Therefore, the attributes, measures and targets below have been developed based on the specific conservation objectives available for kittiwake in the Saltee Islands SPA [004002] (NPWS, 2011). | | | |
| Breeding population abundance: apparently occupied nests (AONs) / Number / No significant decline | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quantity and quality of prey fish species and the quality the of intertidal / coastal habitats that support the Special Conservation Interests bird species of the SPA. This could potentially affect the use of habitat areas by birds and have long-term effects on the SPA populations. | Yes<br>The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | No |
| Productivity rate / Mean number / No significant decline | | | |
| Distribution: breeding colonies / Number; location; area (hectares) / No significant decline | | | |
| Prey biomass available / Kilogrammes / No significant decline | | | |
| Barriers to connectivity / Number; location; shape; area (hectares) / No significant increase | | | |
| Disturbance at the breeding site / Level of impact / No significant increase | | | |
| **Dalkey Islands SPA** | | | |
| **Roseate Tern (*Sterna dougallii*) [A192]**<br>There is no site-specific conservation objectives document available for this SPA. Therefore, the attributes, measures and targets below have been developed based on the specific conservation objectives available for roseate tern in the South Dublin Bay and River Tolka Estuary SPA [004024] (NPWS, 2015a). | | | |
| Passage population: individuals / Number / No significant decline | Yes<br>An accidental pollution event during construction or operation could affect | Yes<br>The mitigation measures described in Section 7.1.4 to protect water quality | No |
| Distribution: roosting areas / Number; location; area (hectares) / No significant decline | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| Prey biomass available / Kilogrammes / No significant decline | surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either along or cumulatively with other pollution sources, could potentially affect the quantity and quality of prey fish species and the quality and suitability of roosting sites within the SPA. | in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | |
| Barriers to connectivity / Number; location; shape; area (hectares) / No significant increase | | | |
| Disturbance at roosting site / Level of impact / Human activities should occur at levels that do not adversely affect the numbers of roseate tern among the post-breeding aggregation of terns | | | |
| **Common Tern (*Sterna hirundo*) [A193]**<br>There is no site-specific conservation objectives document available for this SPA. Therefore, the attributes, measures and targets below have been developed based on the specific conservation objectives available for common tern in the South Dublin Bay and River Tolka Estuary SPA [004024] (NPWS 2015a). | | | |
| Breeding population abundance: apparently occupied nests (AONs) / Number / No significant decline | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either along or cumulatively with other pollution sources, could potentially affect the quantity and quality of prey fish species and the quality and suitability of roosting sites within the SPA. | Yes<br>The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | No |
| Productivity rate: fledged young per breeding pair / Mean number / No significant decline | | | |
| Passage population: individuals / Number / No significant decline | | | |
| Distribution: breeding colonies / Number; location; area (Hectares) / No significant decline | | | |
| Distribution: roosting areas / Number; location; area (Hectares) / No significant decline | | | |
| Prey biomass available / Kilogrammes / No significant decline | | | |
| Barriers to connectivity / Number; location; shape; area (hectares) / No significant increase | | | |
| Disturbance at breeding site / Level of impact / Human activities should occur at levels that do not adversely affect the breeding common tern population | | | |
| Disturbance at roosting site / Level of impact / Human activities should occur at levels that do not adversely affect the numbers of common tern among the post-breeding aggregation of terns | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| **Arctic Tern (*Sterna paradisaea*) [A194]**<br>There is no site-specific conservation objectives document available for this SPA. Therefore, the attributes, measures and targets below have been developed based on the specific conservation objectives available for arctic tern in the South Dublin Bay and River Tolka Estuary SPA [004024] (NPWS 2015a). | | | |
| Passage population / Number of individuals / No significant decline | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either along or cumulatively with other pollution sources, could potentially affect the quantity and quality of prey fish species and the quality and suitability of roosting sites within the SPA. | Yes<br>The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | No |
| Distribution: roosting areas / Number; location; area (hectares) / No significant decline | | | |
| Prey biomass available / Kilogrammes / No significant decline | | | |
| Barriers to connectivity / Number; location; shape; area (hectares) / No significant increase | | | |
| Disturbance at roosting site / Level of impact / Human activities should occur at levels that do not adversely affect the numbers of Arctic tern among the post-breeding aggregation of terns | | | |
| **Rockabill SPA** | | | |
| **Purple Sandpiper (*Calidris maritima*) [A148]**<br>To maintain the favourable conservation condition of Purple Sandpiper in Rockabill SPA, which is defined as follows: | | | |
| Population trend / Percentage change / Long term population trend stable or increasing | No<br>There is no pathway for impacts to occur on this SCI species as it is located a significant distance from the Proposed Scheme, and on the northern side of the Howth peninsula, separated by a large marine waterbody. | No | No |
| Distribution / Range, timing and intensity of use of areas / No significant decrease in the range, timing or intensity of use of areas by purple sandpiper other than that occurring from natural patterns of variation | | | |
| **Roseate Tern (*Sterna dougallii*) [A192]**<br>To maintain the favourable conservation condition of Roseate Tern in Rockabill SPA, which is defined as follows: | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| Breeding population abundance: apparently occupied nests (AONs) Number No significant decline | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect this SCI species through direct contact with pollutants and / or a decline in the quantity and quality of prey fish species. | Yes<br>The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | No |
| Productivity rate: fledged young per breeding pair / Mean number / No significant decline | | | |
| Distribution: breeding colonies / Number; location; area (hectares) / No significant decline | | | |
| Prey biomass available / Kilogrammes / No significant decline | | | |
| Barriers to connectivity / Number; location; shape; area (hectares) / No significant increase | | | |
| Disturbance at breeding site / Level of impact / Human activities should occur at levels that do not adversely affect the breeding roseate tern population | | | |
| **Common Tern (*Sterna hirundo*) [A193]**<br>To maintain the favourable conservation condition of Common Tern in Rockabill SPA, which is defined as follows: | | | |
| Breeding population abundance: apparently occupied nests (AONs) /Number / No significant decline | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect this SCI species through direct contact with pollutants and / or a decline in the quantity and quality of prey fish species. | Yes<br>The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | No |
| Productivity rate: fledged young per breeding pair / Mean number / No significant decline | | | |
| Distribution: breeding colonies / Number; location; area (Hectares) No significant decline | | | |
| Prey biomass available / Kilogrammes / No significant decline | | | |
| Barriers to connectivity / Number; location; shape; area (hectares) / No significant increase | | | |
| Disturbance at breeding site / Level of impact / Human activities should occur at levels that do not adversely affect the breeding common tern population | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| **Arctic Tern (*Sterna paradisaea*) [A194]**<br>To maintain the favourable conservation condition of Arctic Tern in Rockabill SPA, which is defined as follows: | | | |
| Breeding population abundance: apparently occupied nests (AONs) / Number / No significant decline | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect this SCI species through direct contact with pollutants and / or a decline in the quantity and quality of prey fish species. | Yes<br>The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | No |
| Productivity rate: fledged young per breeding pair / Mean number / No significant decline | | | |
| Distribution: breeding colonies / Number; location; area (Hectares) / No significant decline | | | |
| Prey biomass available / Kilogrammes / No significant decline | | | |
| Barriers to connectivity / Number; location; shape; area (hectares) / No significant increase | | | |
| Disturbance at breeding site / Level of impact / Human activities should occur at levels that do not adversely affect the breeding common tern population | | | |

### *7.6.6 Mitigation Measures*

294 This Section presents the mitigation measures that will be implemented during Construction and Operation to avoid or reduce the potential impacts of the Proposed Scheme on Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA. All of the mitigation measures will be implemented in full and are best practice, and tried and tested, effective control measures to protect the receiving environment.

Measures to Protect Surface Water Quality during Construction

295 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during Construction of the Proposed Scheme.

Measures to Protect Surface Water Quality during Operation

296 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during Operation of the Proposed Scheme.

### *7.6.7 Residual Impacts*

297 With the effective implementation of appropriate mitigation measures identified in this NIS, the Proposed Scheme poses no risk of adverse affecting the conservation objectives, or the favourable conservation condition, of Special Conservation Interests of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA, and there are therefore, no residual direct or indirect impacts associated with the Proposed Scheme that could adversely affect the integrity of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA. As is confirmed by the Water Framework Directive Assessment for the Proposed Scheme (refer to Appendix V), the proposed Scheme will not cause a deterioration in status in any water body, will not prevent any water body from achieving good ecological status or good ecological potential, and it can be concluded that the Proposed Scheme complies with all requirements of the WFD.

### *7.6.8 Conclusion of Assessment for Howth Head Coast SPA, Dalkey Islands SPA, and Rockabill SPA*

298 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the Special Conservation Interests of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA, the potential impacts and mitigation measures, and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the Special Conservation Interests, it has been concluded that the Proposed Scheme does not pose a risk of adversely affecting (either directly or indirectly) the integrity of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA.

## **7.7 Baldoyle Bay SPA [004016]**

### *7.7.1 Ecological Baseline Description for Baldoyle Bay SPA*

299 The Natura 2000 Standard Data Form (NPWS, 2020h) lists the SPA as an estuarine and bay system with habitats of variable but generally good quality. It has extensive mud and sand flats, often with a high organic content and salt marsh habitat. It has good salt marsh fringes where birds roost. The site supports wintering waterfowl, most notably an internationally important population of light-bellied Brent goose. It also supports nationally important populations of shelduck, pintail *Anas acuta*, ringed plover *Charadrius hiaticula*, golden plover, grey plover and bar-tailed godwit. At high tide, the shallow waters attract species such as great-crested grebe and red-breasted merganser. Threats to the site include hunting, eutrophication, bait-digging and human habitation / urbanisation.

### *7.7.2 Special Conservation Interests and Conservation Objectives of Baldoyle Bay SPA*

300 The Special Conservation Interests of Baldoyle Bay SPA, and the overall conservation objective, are listed in Table 22.

***Table 22: Special Conservation Interests and Conservation Objectives of Baldoyle Bay SPA***

| Special Conservation Interest(s) | Conservation Objective(s) |
|---|---|
| **Baldoyle Bay SPA [004016]**<br>A046 Light-bellied Brent Goose *Branta bernicla hrota*<br>A048 Shelduck *Tadorna tadorna*<br>A137 Ringed Plover *Charadrius hiaticula*<br>A140 Golden Plover *Pluvialis apricaria*<br>A141 Grey Plover *Pluvialis squatarola*<br>A157 Bar-tailed Godwit *Limosa lapponica*<br>A999 Wetland and Waterbirds<br><br>*S.I. No. 275 / 2010 - European Communities (Conservation of Wild Birds (Baldoyle Bay Special Protection Area 004016)) Regulations 2010.*<br>NPWS (2013f) *Conservation Objectives: Baldoyle Bay SPA 004016. Version 1.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | To maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.<br><br>To maintain the favourable conservation condition of the wetland habitat in Baldoyle Bay SPA |

301 In conjunction with considering the generic conservation objective for this SPA "To maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA", the site-specific conservation objectives document for Baldoyle Bay SPA also informed this assessment.

302 The site-specific conservation objectives document sets out the attributes, measures and targets that define the favourable conservation condition of the Special Conservation Interests within the European site. Affecting the conservation condition of the Special Conservation Interests would constitute an adverse effect on the integrity of a European site. The specific attributes and targets used to define the conservation objectives of the Special Conservation Interests of Baldoyle Bay SPA are presented in Section 7.7.3.4.

### *7.7.3 Examination and Analysis of Potential Direct and Indirect Impacts*

303 The direct and / or indirect impacts by which the Proposed Scheme could (in the absence of mitigation measures) potentially affect the conservation objective attributes and targets supporting the conservation condition of the Special Conservation Interests of Baldoyle Bay SPA, are:

- Habitat degradation / effects on SCI species as a result of hydrological impacts;
- Habitat loss / fragmentation; and,
- Disturbance and displacement impacts.

#### 7.7.3.1 Habitat degradation / effects on SCI species as a result of hydrological impacts

304 The release of contaminated surface water runoff and / or an accidental spillage or pollution event into any surface water features during Construction, or Operation, has the potential to affect water quality in the receiving aquatic environment. Such a pollution event may include: the release of sediment into receiving waters and the subsequent increase in mobilised suspended solids; and the accidental spillage and / or leaks of contaminants into receiving waters. The associated effects of a reduction of surface water quality could potentially extend for a considerable distance downstream of the location of the accidental pollution event or the discharge. The Proposed Scheme is hydrologically connected to Dublin Bay via the Owenadoher River, River Dodder, the Grand Canal as well as the Liffey Estuary Upper and Lower as well as a network of interconnecting and established surface or combined sewer / surface water pipes.

305 Therefore, (albeit unlikely) this reduction in water quality (either alone or in combination with other pressures on water quality) could result in the degradation of sensitive habitats present within Dublin Bay. As a worst-case scenario there is potential to affect mobile SCI bird species that commute, forage and loaf

in Dublin Bay. It could also negatively affect the quantity and quality of prey available to SCI bird species. These potential impacts could occur to such a degree that they result in significant effects which could have implications for the conservation objectives of Baldoyle SPA.

#### 7.7.3.2 Habitat loss / fragmentation

306 Baldoyle SPA is designated for wintering SCI species that are known to forage and / or roost at inland sites across Dublin, such as amenity grassland playing pitches. These species include light-bellied Brent goose, and golden plover. There are three areas of suitable foraging, and / or roosting habitat for these species within the footprint of the Proposed Scheme, composing grassland habitats (CBC1012WB001, CBC1012WB002, and CBC1012WB003.

307 The Proposed Scheme will result in the short-term loss of approximately 0.455ha in total of largely GA2 habitat suitable to support breeding gull and wintering bird species (e.g., light-bellied Brent goose) as a result of the installation of Construction Compound TR3. The other areas of open territory where wintering bird surveys were undertaken will not directly impact wintering birds as they are small in extent and outside the Proposed Scheme Boundary (CBC1012WB002) or the territory in them that is being lost is not suitable to support wintering bird species (CBC1012WB003).

308 There is no potential for impacts to occur on inland feeding Special Conservation Interest populations associated with Baldoyle Bay SPA, in light of their conservation objectives, as a consequence of habitat loss / fragmentation of inland feeding / roosting sites due to the following reasons:

- According to the data collected during wintering bird surveys undertaken during both the 2020-2021 and 2021-2022 wintering bird seasons, none of the sites to be lost are significant inland foraging resource for wintering bird species, given the low numbers of wintering bird species recorded, with respect to their national and international populations. Therefore, the temporary loss of this site during the construction of the Proposed Scheme will not result in any likely significant effect on the conservation status of any wintering bird species or undermine the conservation objectives of any SPAs in the vicinity which are designated for this species;
- The low frequency of occurrence of these SCI bird species recorded on lands located within the footprint of the Proposed Scheme, suggests that these species do not regularly use or rely upon these lands as foraging and/or roosting habitat, and are likely to use other suitable sites available in the wider area on a similar or more regular basis; and
- Landtake in these areas is temporary in nature and will be returned to its original state during the Operational Phase of the Proposed Scheme.

#### 7.7.3.3 Disturbance and displacement impacts

309 A temporary and / or permanent increase in noise, vibration and / or human activity levels during the Construction and / or Operation of the Proposed Scheme could result in the disturbance to and / or displacement of SCI bird species present within footprint and / or the vicinity of the Proposed Scheme. Potential for such disturbance effects would not be expected to extend beyond a distance of approximately 300m, as noise levels associated with general construction activities would attenuate to close to background levels at that distance and beyond. The Operational Phase is not deemed to result in significant changes to existing noise levels due to the urban locality of the Proposed Scheme as an existing transport route. Table 16 in Section 7.4.3.4 of this NIS provides the predicted construction noise limits associated with different construction activities of the Proposed Scheme.

310 Baldoyle Bay SPA is designated for wintering SCI species that are known to forage and / or roost at inland sites across Dublin, such as amenity grassland playing pitches e.g., light-bellied Brent goose and golden plover. There are areas of suitable foraging, and / or roosting habitat for these species within the footprint of the Proposed Scheme.

311 As records of SCI bird species associated with the Baldoyle Bay SPA have been returned from the desk study in the vicinity of the Proposed Scheme (i.e., light-bellied Brent goose), it is likely that Special Conservation

Interest bird species associated with the Baldoyle Bay SPA currently utilise suitable lands in the wider area. However, no significant effects will occur on any Special Conservation Interest bird species populations of Baldoyle Bay SPA, in light of their conservation objectives, as a consequence of the disturbance and / or displacement from inland feeding / roosting sites due to increased levels of disturbance due to the following reasons:

- For the majority of construction activities, any wintering birds present at a distance of 50m or more from the edge of works (where noise levels will be between 50dB and 70dB) would experience only a moderate effect / level of response, i.e., birds becoming alert and some behavioural changes (e.g., reduced feeding activity), but birds would be expected to habituate to noise levels within this range. Within a 50m distance from the edge of works (where construction noise levels will be above 70dB) birds would be likely to move out of the affected zone, or leave the site altogether. Therefore the worst-case exclusion or displacement of birds due to noise impacts during construction works would be for birds using the zone within 50m of the edge of construction works only, with birds likely to only experience a moderate effect / level of response from areas beyond this 30m distance as a result of noise impacts[29];
- The low numbers of species recorded using the sites surveyed within the footprint of the Proposed Scheme (e.g., CBC1012WB001, CBC1012WB002 and CBC1012WB003), during field surveys undertaken in both the 2020-2021 and 2021-2022 winter seasons, which suggests that these species do not regularly use or rely upon these lands as foraging and / or roosting habitat, and are likely to use other suitable sites available in the wider area on a similar or more regular basis;
- The availability of large areas of suitable foraging and / or roosting habitat for these Special Conservation Interest bird species in the wider locality of the Proposed Scheme, including those in closer proximity to nearby SPAs. These include other similar public amenity grassland parks and sports pitches such as the documented *ex-situ* wintering bird site at Tymon Park as well as Templeogue College, Eammon Ceannt Park, St Marys College RFC and Leinster Cricket Ground; and,
- The short-term nature of any disturbance related impacts associated with the construction of the Proposed Scheme, which is expected to last for 24 months. Following the completion of Construction, disturbance levels will over time return to baseline conditions and as a result suitable lands will become available again as foraging and / or roosting habitat for these Special Conservation Interest species.

#### 7.7.3.4 Summary

312 Table 23 presents a summary of the potential impacts of the Proposed Scheme on the Special Conservation Interests of Baldoyle Bay SPA, and how these impacts relate to affecting the site's conservation objectives.

[29] Based on current understanding of construction related noise disturbance to wintering waterbirds is based on the research presented in Cutts *et al*. (2009) and Wright *et al*. (2010).

***Table 23: Potential Impacts / Effects on the Conservation Objectives of Baldoyle Bay SPA***

| **Conservation Objectives**<br>**Attribute / Measure / Target** | **Potential Impacts Requiring Mitigation?** | **Are mitigation measures required?** | **Residual Impacts?** |
|---|---|---|---|
| **Baldoyle Bay SPA** | | | |
| **Light-bellied Brent Goose (*Branta bernicla hrota*) [A046], Shelduck (*Tadorna tadorna*) [A048], Ringed Plover (*Charadrius hiaticula)* [A137], Golden Plover (*Pluvialis apricaria*) [A140], Grey Plover (*Pluvialis squatarola*) [A141], Bar-tailed Godwit (*Limosa lapponica*) [A157]**<br>To maintain the favourable conservation condition of the special conservation interests of the SPA, which is defined as follows: | | | |
| Population trend / Percentage change / Long term population trend stable or increasing | Yes<br>In a worst-case scenario, an accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay, which SCI birds may utilise outside of their core SPA foraging areas. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quantity and quality of prey fish species and the quality the of intertidal / coastal habitats that support the Special Conservation Interest bird species of the SPA. This could potentially affect the use of habitat areas by birds and have long-term effects on the SPA populations. | Yes<br>The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | No |
| Distribution / Range, timing and intensity of use of areas / No significant decrease in the range, timing and intensity of use of areas by all of the above-named species, other than that occurring from natural patterns of variation | | | |
| **Wetlands [A999]**<br>To maintain the favourable conservation condition of wetland habitats within the SPA, which is defined as follows: | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| Habitat area / Hectares / The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 263ha, other than that occurring from natural patterns of variation | No<br>There is no potential for impacts to occur on any habitats associated with the Baldoyle Bay SPA as the Proposed Scheme is not hydrologically connected to the Baldoyle Bay. | No | No |

### *7.7.4 Mitigation Measures*

313 This Section presents the mitigation measures that will be implemented during Construction and Operation to avoid or reduce the potential impacts of the Proposed Scheme on Baldoyle Bay SPA. All of the mitigation measures will be implemented in full and are best practice, and tried and tested, effective control measures to protect the receiving environment.

Measures to Protect Surface Water Quality during Construction

314 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during Construction of the Proposed Scheme.

Measures to Protect Surface Water Quality during Operation

315 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during Operation of the Proposed Scheme.

### *7.7.5 Residual Impacts*

316 With the effective implementation of appropriate mitigation measures identified in this NIS, the Proposed Scheme poses no risk of affecting the conservation objectives, or the favourable conservation condition, of the Special Conservation Interests and supporting wetland habitat of Baldoyle Bay SPA, and there are therefore, no residual direct or indirect impacts associated with the Proposed Scheme that could adversely affect the integrity of Baldoyle Bay SPA. As is confirmed by the Water Framework Directive Assessment for the Proposed Scheme (refer to Appendix V), the proposed Scheme will not cause a deterioration in status in any water body, will not prevent any water body from achieving good ecological status or good ecological potential, and it can be concluded that the Proposed Scheme complies with all requirements of the WFD.

### *7.7.6 Conclusion of Assessment for Baldoyle Bay SPA*

317 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the Special Conservation Interests of Baldoyle Bay SPA, the potential impacts and mitigation measures and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the Special Conservation Interests, it has been concluded that the Proposed Scheme does not pose a risk of adversely affecting (either directly or indirectly) the integrity of Baldoyle Bay SPA.

## **7.8 Malahide Estuary SPA [004025]**

### *7.8.1 Ecological Baseline Description for Malahide Estuary SPA*

318 Malahide Estuary SPA comprises the estuary of the River Broadmeadow. According to the Natura 2000 Standard Data Form for the site (NPWS, 2020i), the estuary comprises, saltmarsh habitats and extensive intertidal flats. This site is of high importance for wintering waterfowl and supports a particularly good diversity of species. It provides both feeding and roosting areas for a range of wintering waterfowl. It supports an internationally important population of light-bellied Brent geese and nationally important populations of a further 12 species. The site is also an important and regular site for a range of autumn passage migrants.

### *7.8.2 Special Conservation Interests and Conservation Objectives of Malahide Estuary SPA*

319 The Special Conservation Interests of Malahide Estuary SPA, and the overall conservation objective, are listed in Table 24.

***Table 24: Special Conservation Interests and Conservation Objectives of Malahide Estuary SPA***

| Special Conservation Interest(s) | Conservation Objective(s) |
|---|---|
| **Malahide Estuary SPA [004025]**<br>A005 Great Crested Grebe *Podiceps cristatus*<br>A046 Light-bellied Brent Goose *Branta bernicla hrota*<br>A048 Shelduck *Tadorna tadorna*<br>A054 Pintail *Anas acuta*<br>A067 Goldeneye *Bucephala clangula*<br>A069 Red-breasted Merganser *Mergus serrator*<br>A130 Oystercatcher *Haematopus ostralegus*<br>A140 Golden Plover *Pluvialis apricaria*<br>A141 Grey Plover *Pluvialis squatarola*<br>A143 Knot *Calidris canutus*<br>A149 Dunlin *Calidris alpina*<br>A156 Black-tailed Godwit *Limosa limosa*<br>A157 Bar-tailed Godwit *Limosa lapponica*<br>A162 Redshank *Tringa totanus*<br>A999 Wetland and Waterbirds<br><br>*S.I. No. 285 / 2011 – European Communities (Conservation of Wild Birds (Malahide Estuary Special Protection Area 004025)) Regulations 2011.*<br>NPWS (2013g) *Conservation Objectives: Malahide Estuary SPA 004025.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | To maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.<br>To maintain the favourable conservation condition of the wetland habitat in Malahide Estuary SPA as a resource for the regularly occurring migratory waterbirds that utilise it |

320 In conjunction with considering the generic conservation objective for this SPA "To maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.", the site-specific conservation objectives document for Malahide Estuary SPA also informed this assessment.

321 The site-specific conservation objectives document sets out the attributes, measures and targets that define the favourable conservation condition of the Special Conservation Interests within the European site. Affecting the conservation condition of the Special Conservation Interests would constitute an adverse effect on the integrity of a European site. The specific attributes and targets used to define the conservation objectives of the Special Conservation Interests of Malahide Estuary SPA are presented in Section 7.8.3.4.

### *7.8.3 Examination and Analysis of Potential Direct and Indirect Impacts*

322 The direct and / or indirect impacts by which the Proposed Scheme could (in the absence of mitigation measures) potentially affect the conservation objective attributes and targets supporting the conservation condition of the Special Conservation Interests of Malahide Estuary SPA, are:

- Habitat degradation / effects on SCI species as a result of hydrological impacts;
- Habitat loss / fragmentation; and,
- Disturbance and displacement impacts.

#### 7.8.3.1 Habitat degradation / effects on SCI species as a result of hydrological impacts

323 The release of contaminated surface water runoff and / or an accidental spillage or pollution event into any surface water features during construction, or operation, has the potential to affect water quality in the receiving aquatic environment. Such a pollution event may include: the release of sediment into

receiving waters and the subsequent increase in mobilised suspended solids; and the accidental spillage and / or leaks of contaminants into receiving waters. The associated effects of a reduction of surface water quality could potentially extend for a considerable distance downstream of the location of the accidental pollution event or the discharge. The Proposed Scheme is hydrologically connected to Dublin Bay via the Owenadoher River, River Dodder, the Grand Canal as well as the Liffey Estuary Upper and Lower as well as a network of interconnecting and established surface or combined sewer / surface water pipes.

324 Therefore, (albeit unlikely) this reduction in water quality (either alone or in combination with other pressures on water quality) could result in the degradation of sensitive habitats present within Dublin Bay. As a worst-case scenario there is potential to affect mobile Special Conservation Interest bird species that commute, forage and loaf in Dublin Bay. It could also negatively affect the quantity and quality of prey available to Special Conservation Interest bird species. These potential impacts could occur to such a degree that they result in significant effects which could have implications for the conservation objectives of Malahide SPA.

#### 7.8.3.2 Habitat loss / fragmentation

325 Malahide Estuary SPA is designated for wintering Special Conservation Interest species that are known to forage and / or roost at inland sites across Dublin, such as amenity grassland playing pitches. These species include including light-bellied Brent goose, redshank and golden plover, oystercatcher. There are three areas of suitable foraging, and / or roosting habitat for these species within the footprint of the Proposed Scheme, composing grassland habitats (CBC1012WB001, CBC1012WB002, and CBC1012WB003.

326 The Proposed Scheme will result in the short-term loss of approximately 0.0455ha in total of largely GA2 habitat suitable to support breeding gull and wintering bird species (e.g., light-bellied Brent goose) as a result of the installation of Construction Compound TR3. The other areas of open territory where wintering bird surveys were undertaken will not directly impact wintering birds as they are small in extent and outside the Proposed Scheme Boundary (CBC1012WB002) or the territory in them that is being lost is not suitable to support wintering bird species (CBC1012WB003).

327 There is no potential for impacts to occur on inland feeding Special Conservation Interest populations associated with Malahide Estuary SPA, in light of their conservation objectives, as a consequence of habitat loss / fragmentation of inland feeding / roosting sites due to the following reasons:

- According to the data collected during winter bird surveys undertaken during both the 2020-2021 and 2021-2022 winter bird season, none of the sites to be lost are significant inland foraging resource for wintering bird species, given the low numbers of wintering bird species recorded, with respect to their national and international populations. Therefore, the temporary loss of this site during the construction of the Proposed Scheme will not result in any likely significant effect on the conservation status of any wintering bird species or undermine the conservation objectives of any SPAs in the vicinity which are designated for this species;
- The low frequency of occurrence of these SCI bird species recorded on lands located within the footprint of the Proposed Scheme, suggests that these species do not regularly use or rely upon these lands as foraging and/or roosting habitat, and are likely to use other suitable sites available in the wider area on a similar or more regular basis; and
- Landtake in these areas is temporary in nature and will be returned to its original state during the Operational Phase of the Proposed Scheme.

#### 7.8.3.3 Disturbance / displacement impacts

328 A temporary and / or permanent increase in noise, vibration and / or human activity levels during the construction and / or operation of the Proposed Scheme could result in the disturbance to and / or displacement of Special Conservation Interest bird species present within footprint and / or the vicinity of the Proposed Scheme. Potential for such disturbance effects would not be expected to extend beyond a distance of approximately 300m, as noise levels associated with general Construction activities would attenuate to close to background levels at that distance and beyond. The Operational Phase is not deemed

to result in significant changes to existing noise levels due to the urban locality of the Proposed Scheme as an existing transport route. Table 16 in Section 7.4.3.4 of this NIS provides the predicted construction noise limits associated with different construction activities of the Proposed Scheme.

329 Malahide Estuary SPA is designated for wintering Special Conservation Interest species that are known to forage and / or roost at inland sites across Dublin, such as amenity grassland playing pitches. These species include light-bellied Brent goose, oystercatcher, golden plover and black-tailed godwit. There are areas of suitable foraging, and / or roosting habitat for these species within the footprint of the Proposed Scheme. It is possible that SCI bird species associated with the Malahide Estuary SPA currently utilise these and other suitable lands in the wider area.

330 As records of Special Conservation Interest bird species associated with the Malahide Estuary SPA have been returned from the desk study in the vicinity of the Proposed Scheme (i.e., light-bellied Brent goose and black-headed gull), it is likely that SCI bird species associated with the Malahide Estuary SPA currently utilise suitable lands in the wider area. However, no significant effects will occur on any SCI bird species populations of Malahide Estuary SPA, in light of their conservation objectives, as a consequence of the disturbance and / or displacement from inland feeding / roosting sites due to increased levels of disturbance due to the following reasons:

- For the majority of construction activities, any wintering birds present at a distance of 50m or more from the edge of works (where noise levels will be between 50dB and 70dB) would experience only a moderate effect / level of response, i.e., birds becoming alert and some behavioural changes (e.g., reduced feeding activity), but birds would be expected to habituate to noise levels within this range. Within a 50m distance from the edge of works (where construction noise levels will be above 70dB) birds would be likely to move out of the affected zone, or leave the site altogether. Therefore the worst-case exclusion or displacement of birds due to noise impacts during construction works would be for birds using the zone within 50m of the edge of construction works only, with birds likely to only experience a moderate effect / level of respons from areas beyond this 30m distance as a result of noise impacts[30];
- The low numbers of species recorded using the sites surveyed within the footprint of the Proposed Scheme (e.g., CBC1012WB001, CBC1012WB002 and CBC1012WB003), during field surveys undertaken in both the 2020-2021 and 2021-2022 winter seasons, which suggests that these species do not regularly use or rely upon these lands as foraging and / or roosting habitat, and are likely to use other suitable sites available in the wider area on a similar or more regular basis;
- The availability of large areas of suitable foraging and / or roosting habitat for these Special Conservation Interest bird species in the wider locality of the Proposed Scheme, including those in closer proximity to nearby SPAs. These include other similar public amenity grassland parks and sports pitches such as the documented *ex-situ* wintering bird site at Tymon Park as well as Templeogue College, Eammon Ceannt Park, St Marys College RFC and Leinster Cricket Ground; and,
- The short-term nature of any disturbance related impacts associated with the construction of the Proposed Scheme, which is expected to last for 24 months. Following the completion of construction, disturbance levels will over time return to baseline conditions and as a result suitable lands will become available again as foraging and / or roosting habitat for these Special Conservation Interest species.

[30] Based on current understanding of construction related noise disturbance to wintering waterbirds is based on the research presented in Cutts *et al*. (2009) and Wright *et al*. (2010).

#### 7.8.3.4 Summary

331 Table 25 presents a summary of the potential impacts of the Proposed Scheme on the Special Conservation Interests of Malahide Estuary SPA, and how these impacts relate to affecting the site's conservation objectives.

***Table 25: Potential Impacts / Effects on the Conservation Objectives of Malahide Estuary SPA***

| **Conservation Objectives**<br>**Attribute / Measure / Target** | **Potential Impacts Requiring Mitigation?** | **Are mitigation measures required?** | **Residual Impacts?** |
|---|---|---|---|
| **Malahide Estuary SPA** | | | |
| **Great Crested Grebe (*Podiceps cristatus*) [A005], Light-bellied Brent Goose (*Branta bernicla hrota*) [A046], Shelduck (*Tadorna tadorna*) [A048], Pintail (*Anas acuta*) [A054], Goldeneye (*Bucephala clangula*) [A067], Red-breasted Merganser (*Mergus serrator*) [A069], Oystercatcher (*Haematopus ostralegus* ) [A130], Golden Plover (*Pluvialis apricaria*) [A140], Grey Plover (*Pluvialis squatarola*) [A141], Knot (*Calidris canutus*) [A143], Dunlin (*Calidris alpina alpina*) [A149], Black-tailed Godwit (*Limosa limosa*) [A156], Bar-tailed Godwit (*Limosa lapponica*) [A157], Redshank (*Tringa totanus*) [A162]**<br>To maintain the favourable conservation condition of the special conservation interests of the SPA, which is defined as follows: | | | |
| Population trend / Percentage change / Long term population trend stable or increasing<br><br>Distribution / Range, timing and intensity of use of areas / No significant decrease in the range, timing and intensity of use of areas by all of the above-named species, other than that occurring from natural patterns of variation | Yes<br>In a worst-case scenario, an accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay, which SCI birds may utilise outside of their core SPA foraging areas. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quantity and quality of prey fish species and the quality the of intertidal / coastal habitats that support the Special Conservation Interest bird species of the SPA. This could potentially affect the use of habitat areas by birds and have long-term effects on the SPA populations. | Yes<br>The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | No |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| **Wetlands [A999]**<br>To maintain the favourable conservation condition of wetland habitats within the SPA, which is defined as follows: | | | |
| Habitat area / Hectares / The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 765ha, other than that occurring from natural patterns of variation | No<br>There is no pathway for impacts to occur on any habitats associated with the Malahide Estuary SPA as the Proposed Scheme is not hydrologically connected to the Malahide Estuary. | No | No |

### *7.8.4 Mitigation Measures*

332 This Section presents the mitigation measures that will be implemented during Construction and Operation to avoid or reduce the potential impacts of the Proposed Scheme on Malahide Estuary SPA. All of the mitigation measures will be implemented in full and are best practice, and tried and tested, effective control measures to protect the receiving environment.

Measures to Protect Surface Water Quality during Construction

333 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during Construction of the Proposed Scheme.

Measures to Protect Surface Water Quality during Operation

334 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during Operation of the Proposed Scheme.

### *7.8.5 Residual Impacts*

335 With the effective implementation of appropriate mitigation measures identified in this NIS, the Proposed Scheme poses no risk of affecting the conservation objectives, or the favourable conservation condition, of the Special Conservation Interests and supporting wetland habitat of Malahide Estuary SPA, and there are therefore, no residual direct or indirect impacts associated with the Proposed Scheme that could adversely affect the integrity of Malahide Estuary SPA. As is confirmed by the Water Framework Directive Assessment for the Proposed Scheme (refer to Appendix V), the proposed Scheme will not cause a deterioration in status in any water body, will not prevent any water body from achieving good ecological status or good ecological potential, and it can be concluded that the Proposed Scheme complies with all requirements of the WFD.

### *7.8.6 Conclusion of Assessment for Malahide Estuary SPA*

336 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the Special Conservation Interests of Malahide Estuary SPA, the potential impacts and mitigation measures, and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the Special Conservation Interests, it has been concluded that the Proposed Scheme does not pose a risk of adversely affecting (either directly or indirectly) the integrity of Malahide Estuary SPA.

## 7.9 Rogerstown Estuary SPA [004015]

### *7.9.1 Ecological Baseline Description for Rogerstown Estuary SPA*

337 The Natura Standard Data Form (NPWS, 2020j) lists Rogerstown Estuary SPA as a relatively small estuarine system in north County Dublin. It has salt marsh and sand dune habitats, as well as agricultural fields which are of ornithological and botanical interest. It has extensive sand and mud flats and supports wintering waterfowl. It supports an internationally important population of light-bellied Brent goose and nationally important populations of a further 15 species. It is an important and regular site for a range of autumn passage migrants. Little tern *Sterna albifrons* has bred in Rogerstown Estuary in the past and there are populations of three Red Data Book plant species present. The main threats to the site include disposal of household / recreational facility waste, non-native invasive species, disposal of industrial waste, fertilisation and landfill, land reclamation and drying out.

### *7.9.2 Special Conservation Interests and Conservation Objectives of Rogerstown Estuary SPA*

338 The Special Conservation Interests of Rogerstown Estuary SPA, and the overall conservation objectives, are listed in Table 26.

***Table 26: Special Conservation Interests and Conservation Objectives of Rogerstown Estuary SPA***

| Special Conservation Interest(s) | Conservation Objective(s) |
|---|---|
| **Rogerstown Estuary SPA [004015]**<br>A043 Greylag Goose *Anser anser*<br>A046 Brent Goose *Branta bernicla hrota*<br>A048 Shelduck *Tadorna tadorna*<br>A056 Shoveler *Anas clypeata*<br>A130 Oystercatcher *Haematopus ostralegus*<br>A137 Ringed Plover *Charadrius hiaticula*<br>A141 Grey Plover *Pluvialis squatarola*<br>A143 Knot *Calidris canutus*<br>A149 Dunlin *Calidris alpina alpina*<br>A156 Black-tailed Godwit *Limosa limosa*<br>A162 Redshank *Tringa totanus*<br>A999 Wetlands<br><br>*S.I. No. 271 / 2010 – European Communities (Conservation of Wild Birds (Rogerstown Estuary Special Protection Area 004015)) Regulations 2010.*<br>NPWS (2013h) *Conservation Objectives: Rogerstown Estuary SPA 004015*. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | To maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA<br><br>To maintain the favourable conservation condition of wetland habitat in Rogerstown Estuary SPA as a resource for the regularly occurring migratory waterbirds that utilise it |

339 In conjunction with considering the generic conservation objective for this SPA "To maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA." The site-specific conservation objectives document for Rogerstown Estuary SPA also informed this assessment.

340 The site-specific conservation objectives document sets out the attributes, measures and targets that define the favourable conservation condition of the Special Conservation Interests within the European site. Affecting the conservation condition of the Qualifying Interests / Special Conservation Interests would constitute an adverse effect on the integrity of a European site. The specific attributes and targets used to define the conservation objectives of the Special Conservation Interests of Rogerstown Estuary SPA are presented in Section 7.9.3.4.

### *7.9.3 Examination and Analysis of Potential Direct and Indirect Impacts*

341 The direct and / or indirect impacts by which the Proposed Scheme could (in the absence of mitigation measures) potentially affect the conservation objective attributes and targets supporting the conservation condition of the Special Conservation Interests of Rogerstown Estuary SPA, are:

- Habitat degradation / effects on SCI species as a result of hydrological impacts;
- Habitat loss and fragmentation; and;
- Disturbance and displacement impacts.

#### 7.9.3.1 Habitat degradation / effects on SCI species as a result of hydrological impacts.

342 The release of contaminated surface water runoff and / or an accidental spillage or pollution event into any surface water features during Construction, or Operation, has the potential to affect water quality in the receiving aquatic environment. Such a pollution event may include: the release of sediment into receiving waters and the subsequent increase in mobilised suspended solids; and the accidental spillage and / or leaks of contaminants into receiving waters. The associated effects of a reduction of surface water

quality could potentially extend for a considerable distance downstream of the location of the accidental pollution event or the discharge. The Proposed Scheme is hydrologically connected to Dublin Bay via Owenadoher River, River Dodder, the Grand Canal as well as the Liffey Estuary Upper and Lower as well as a network of interconnecting and established surface or combined sewer / surface water pipes.

343 Therefore, (albeit unlikely) this reduction in water quality (either alone or in combination with other pressures on water quality) could result in the degradation of sensitive habitats present within Dublin Bay. As a worst-case scenario there is potential to affect mobile Special Conservation Interest bird species that commute, forage and loaf in Dublin Bay. It could also negatively affect the quantity and quality of prey available to Special Conservation Interest bird species. These potential impacts could occur to such a degree that they result in significant effects which could have implications for the conservation objectives of Rogerstown Estuary SPA.

#### 7.9.3.2 Habitat loss and fragmentation

344 Rogerstown Estuary SPA is designated for wintering SCI species that are known to forage and / or roost at inland sites across Dublin, such as amenity grassland playing pitches.

345 These species include light-bellied Brent goose, redshank, and oystercatcher. There are three areas of suitable foraging, and / or roosting habitat for these species within the footprint of the Proposed Scheme, composing grassland habitats (CBC1012WB001, CBC1012WB002, and CBC1012WB003.

346 The Proposed Scheme will result in the short-term loss of approximately 0.455ha in total of largely GA2 habitat suitable to support breeding gull and wintering bird species (e.g., light-bellied Brent goose) as a result of the installation of Construction Compound TR3. The other areas of open territory where wintering bird surveys were undertaken will not directly impact wintering birds as they are small in extent and outside the Proposed Scheme Boundary (CBC1012WB002) or the territory in them that is being lost is not suitable to support wintering bird species (CBC1012WB0003).

347 There is no potential for impacts to occur on inland feeding SCI populations associated with Rogerstown Estuary SPA, in light of their conservation objectives, as a consequence of habitat loss / fragmentation of inland feeding / roosting sites due to the following reasons:

- According to the data collected during wintering bird surveys undertaken during both the 2020-2021 and 2021-2022 wintering bird seasons, none of the sites to be lost are significant inland foraging resource for wintering bird species, given the low numbers of wintering bird species recorded, with respect to their national and international populations. Therefore, the temporary loss of this site during the Construction of the Proposed Scheme will not result in any likely significant effect on the conservation status of any wintering bird species or undermine the conservation objectives of any SPAs in the vicinity which are designated for this species;
- The low frequency of occurrence of these SCI bird species recorded on lands located within the footprint of the Proposed Scheme, suggests that these species do not regularly use or rely upon these lands as foraging and/or roosting habitat, and are likely to use other suitable sites available in the wider area on a similar or more regular basis; and
- Landtake in these areas is temporary in nature and will be returned to its original state during the Operational Phase of the Proposed Scheme.

#### 7.9.3.3 Disturbance and Displacement impacts

348 A temporary and / or permanent increase in noise, vibration and / or human activity levels during the construction and / or operation of the Proposed Scheme could result in the disturbance to and / or displacement of SCI bird species present within footprint and / or the vicinity of the Proposed Scheme. Potential for such disturbance effects would not be expected to extend beyond a distance of approximately 300m, as noise levels associated with general Construction activities would attenuate to close to background levels at that distance and beyond. The Operational Phase is not deemed to result in significant

changes to existing noise levels due to the urban locality of the Proposed Scheme as an existing transport route.

349 Table 16 in Section 7.4.3.4 of this NIS provides the predicted construction noise limits associated with different construction activities of the Proposed Scheme.

350 Rogerstown Estuary SPA is designated for wintering Special Conservation Interest species that are known to forage and / or roost at inland sites across Dublin, such as amenity grassland playing pitches. These species include light-bellied Brent goose and oystercatcher and black-tailed godwit. There are areas of suitable foraging, and / or roosting habitat for these species within the footprint of the Proposed Scheme.

351 As records of Special Conservation Interest bird species associated with Rogerstown Estuary SPA have been returned from the desk study in the vicinity of the Proposed Scheme (i.e., light-bellied Brent goose), it is likely that SCI bird species associated with the Rogerstown Estuary SPA currently utilise suitable lands in the wider area. However, no significant effects will occur on any SCI bird species populations of Rogerstown Estuary SPA, in light of their conservation objectives, as a consequence of the disturbance and / or displacement from inland feeding / roosting sites due to increased levels of disturbance due to the following reasons:

- For the majority of construction activities, any wintering birds present at a distance of 50m or more from the edge of works (where noise levels will be between 50dB and 70dB) would experience only a moderate effect / level of response, i.e., birds becoming alert and some behavioural changes (e.g., reduced feeding activity), but birds would be expected to habituate to noise levels within this range. Within a 50m distance from the edge of works (where construction noise levels will be above 70dB) birds would be likely to move out of the affected zone, or leave the site altogether. Therefore the worst-case exclusion or displacement of birds due to noise impacts during construction works would be for birds using the zone within 50m of the edge of construction works only, with birds likely to only experience a moderate effect / level of response from areas beyond this 30m distance as a result of noise impacts[31];
- The low numbers of species recorded using the sites surveyed within the footprint of the Proposed Scheme (e.g., CBC1012WB001, CBC1012WB002 and CBC1012WB003), during field surveys undertaken in both the 2020-2021 and 2021-2022 winter seasons, which suggests that these species do not regularly use or rely upon these lands as foraging and / or roosting habitat, and are likely to use other suitable sites available in the wider area on a similar or more regular basis;
- The availability of large areas of suitable foraging and / or roosting habitat for these Special Conservation Interest bird species in the wider locality of the Proposed Scheme, including those in closer proximity to nearby SPAs. These include other similar public amenity grassland parks and sports pitches such as the documented *ex-situ* wintering bird site at Tymon Park as well as Templeogue College, Eammon Ceannt Park, St Marys College RFC and Leinster Cricket Ground; and,
- The short-term nature of any disturbance related impacts associated with the construction of the Proposed Scheme, which is expected to last for 24 months. Following the completion of construction, disturbance levels will over time return to baseline conditions and as a result suitable lands will become available again as foraging and / or roosting habitat for these Special Conservation Interest species.

[31] Based on current understanding of construction related noise disturbance to wintering waterbirds is based on the research presented in Cutts *et al*. (2009) and Wright *et al*. (2010).

#### 7.9.3.4 Summary

352 Table 27 presents a summary of the potential impacts of the Proposed Scheme on the Special Conservation Interests of Rogerstown Estuary SPA, and how these impacts relate to affecting the site's conservation objectives.

***Table 27: Potential Impacts / Effects on the Conservation Objectives of Rogerstown Estuary SPA***

| **Conservation Objectives**<br>**Attribute / Measure / Target** | **Potential Impacts Requiring Mitigation?** | **Are mitigation measures required?** | **Residual Impacts?** |
|---|---|---|---|
| **Rogerstown Estuary SPA** | | | |
| **Greylag Goose [A043], Light-bellied Brent Goose (*Branta bernicla hrota*) [A046], Shelduck (*Tadorna tadorna*) [A048], Shoveler (*Anas clypeata*) [A056], Oystercatcher (*Haematopus ostralegus*) [A130], Ringed Plover (*Charadrius hiaticula*) [A137], Grey Plover (*Pluvialis squatarola*) [A141], Knot (*Calidris canutus*) [A143], Dunlin (*Calidris alpina alpina*) [A149], Black-tailed Godwit (*Limosa limosa*) [A156] and Redshank (*Tringa tetanus*) [A162]**<br>To maintain the favourable conservation condition of the special conservation interests of the SPA, which is defined as follows: | | | |
| Population trend / Percentage change / Long term population trend stable or increasing | Yes<br>In a worst-case scenario, an accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay, which SCI birds may utilise outside of their core SPA foraging areas. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quantity and quality of prey fish species and the quality the of intertidal / coastal habitats that support the special conservation interest bird species of the SPA. This could potentially affect the use of habitat areas by birds and have long-term effects on the SPA populations. | Yes<br>The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | No |
| Distribution / Range, timing and intensity of use of areas / No significant decrease in the range, timing and intensity of use of areas by all of the above-named species, other than that occurring from natural patterns of variation | | | |
| **Wetlands [A999]**<br>To maintain the favourable conservation condition of wetland habitats within the SPA, which is defined as follows: | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| Habitat area / Hectares / The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 646ha, other than that occurring from natural patterns of variation | No<br>There is no pathway for impacts to occur on any habitats associated with the Rogerstown Estuary SPA as the Proposed Scheme is not hydrologically connected to Rogerstown Estuary. | No | No |

### *7.9.4 Mitigation Measures*

353 This section presents the mitigation measures that will be implemented during Construction and Operation to avoid or reduce the potential impacts of the Proposed Scheme on Rogerstown Estuary SPA. All of the mitigation measures will be implemented in full and are best practice, and tried and tested, effective control measures to protect the receiving environment.

Measures to Protect Surface Water Quality during Construction

354 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during Construction of the Proposed Scheme.

Measures to Protect Surface Water Quality during Operation

355 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during Operation of the Proposed Scheme.

### *7.9.5 Residual Impacts*

356 With the effective implementation of appropriate mitigation measures identified in this NIS, the Proposed Scheme poses no risk of affecting the conservation objectives, or the favourable conservation condition, of the Special Conservation Interests of Rogerstown Estuary SPA, and there are therefore, no residual direct or indirect impacts associated with the Proposed Scheme that could adversely affect the integrity of Rogerstown Estuary SPA. As is confirmed by the Water Framework Directive Assessment for the Proposed Scheme (refer to Appendix V), the proposed Scheme will not cause a deterioration in status in any water body, will not prevent any water body from achieving good ecological status or good ecological potential, and it can be concluded that the Proposed Scheme complies with all requirements of the WFD.

### *7.9.6 Conclusion of Assessment for Rogerstown Estuary SPA*

357 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the Special Conservation Interests of Rogerstown Estuary SPA, the potential impacts and mitigation measures, and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the Special Conservation Interests, it has been concluded that the Proposed Scheme does not pose a risk of adversely affecting (either directly or indirectly) the integrity of Rogerstown Estuary SPA.

## **7.10 Skerries Islands SPA [004122]**

### *7.10.1 Ecological Baseline Description for Skerries Islands SPA*

358 The Natura Standard Data Form (NPWS, 2020k) lists Skerries Islands SPA as a group of three small, uninhabited islands between approximately 0.5 and 1.5km off the north Dublin coastline. Habitats on the islands include low cliffs, rocky shores, sandflats and a shingle bar. Vegetation of the islands is dominated by rank grasses and brambles. The site has nationally important breeding colonies of cormorant *Phalacrocorax carbo*, shag *Phalacrocorax aristotelis*, herring gull and greater black-backed gull. In winter, the site is visited by a good diversity of waterfowl. It supports an internationally important population of light-bellied Brent goose and nationally important populations of cormorant, purple sandpiper and turnstone.

### *7.10.2 Special Conservation Interests and Conservation Objectives of Skerries Islands SPA*

359 The Special Conservation Interests of Skerries Islands SPA, and the overall conservation objective, are listed in Table 28.

***Table 28: Special Conservation Interests and Conservation Objectives of Skerries Islands SPA***

| Special Conservation Interest(s) | Conservation Objective(s) |
|---|---|
| **Skerries Islands SPA [004122]**<br>A017 Cormorant *Phalacrocorax carbo*<br>A018 Shag *Phalacrocorax aristotelis*<br>A046 Light-bellied Brent Goose *Branta bernicla hrota*<br>A148 Purple Sandpiper *Calidris maritima*<br>A169 Turnstone *Arenaria interpres*<br>A184 Herring Gull *Larus argentatus*<br><br>*S.I. No. 245 / 2010 – European Communities (Conservation of Wild Birds (Skerries Islands Special Protection Area 004122)) Regulations 2010.*<br>NPWS (2022g) *Conservation objectives for Skerries Islands SPA [004122].* First Order Site-specific Conservation Objectives. Version 1. Department of Housing, Local Government and Heritage | To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA |

360 In conjunction with considering the generic conservation objective for this SPA "To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA", the site-specific conservation objectives documents for several European sites designated for similar SCI bird species to that of Skerries Islands SPA also informed this assessment. These European sites are identified in Table 29.

361 The site-specific conservation objectives document sets out the attributes, measures and targets that define the favourable conservation condition of the Special Conservation Interests within the European site. Affecting the conservation condition of the Special Conservation Interests would constitute an adverse effect on the integrity of a European site. The specific attributes and targets used to define the conservation objectives of the Special Conservation Interests of Skerries Islands SPA are presented in Section 7.10.3.4.

### *7.10.3 Examination and Analysis of Potential Direct and Indirect Impacts*

362 The direct and / or indirect impacts by which the Proposed Scheme could (in the absence of mitigation measures) potentially affect the conservation objective attributes and targets supporting the conservation condition of the Special Conservation Interests of Skerries Islands SPA, are:

- Habitat degradation / effects on SCI species as a result of hydrological impacts;
- Habitat loss and fragmentation; and,
- Disturbance and displacement impacts.

#### 7.10.3.1 Habitat degradation / effects on SCI species as a result of hydrological impacts

363 The release of contaminated surface water runoff and / or an accidental spillage or pollution event into any surface water features during construction, or operation, has the potential to affect water quality in the receiving aquatic environment. Such a pollution event may include: the release of sediment into receiving waters and the subsequent increase in mobilised suspended solids; and the accidental spillage and / or leaks of contaminants into receiving waters. The associated effects of a reduction of surface water quality could potentially extend for a considerable distance downstream of the location of the accidental pollution event or the discharge. The Proposed Scheme is hydrologically connected to Dublin Bay via Owenadoher River, River Dodder, the Grand Canal as well as the Liffey Estuary Upper and Lower as well as a network of interconnecting and established surface or combined sewer / surface water pipes.

364 Therefore, (albeit unlikely) this reduction in water quality (either alone or in combination with other pressures on water quality) could result in the degradation of sensitive habitats present within Dublin Bay. As a worst-case scenario there is potential to affect mobile Special Conservation Interest bird species that commute, forage and loaf in Dublin Bay. It could also negatively affect the quantity and quality of prey available to Special Conservation Interest bird species. These potential impacts could occur to such a degree that they result in significant effects which could have implications for the conservation objectives of Skerries Islands SPA.

#### 7.10.3.2 Habitat loss and fragmentation

365 Skerries Islands SPA is designated for wintering Special Conservation Interest species that are known to forage and / or roost at inland sites across Dublin, such as amenity grassland playing pitches. These species include including light-bellied Brent goose and herring gull. There are three areas of suitable foraging, and / or roosting habitat for these species within the footprint of the Proposed Scheme, composing grassland habitats (CBC1012WB001, CBC1012WB002, and CBC1012WB003.

366 The Proposed Scheme will result in the short-term loss of approximately 0.455ha in total of largely GA2 habitat suitable to support breeding gull and wintering bird species (e.g., light-bellied Brent goose) as a result of the installation of Construction Compound TR3. The other areas of open territory where wintering bird surveys were undertaken will not directly impact wintering birds as they are small in extent and outside the Proposed Scheme Boundary (CBC1012WB002) or the territory in them that is being lost is not suitable to support wintering bird species (CBC1012WB0003).

367 There is no potential for impacts to occur on inland feeding SCI populations associated with Skerries Islands SPA, in light of their conservation objectives, as a consequence of habitat loss / fragmentation of inland feeding / roosting sites due to the following reasons:

- According to the data collected during wintering bird surveys undertaken during both the 2020-2021 and 2021-2022 wintering bird seasons, none of the sites to be lost are significant inland foraging resource for wintering bird species, given the low numbers of wintering bird species recorded, with respect to their national and international populations. Therefore, the temporary loss of this site during the construction of the Proposed Scheme will not result in any likely significant effect on the conservation status of any wintering bird species or undermine the conservation objectives of any SPAs in the vicinity which are designated for this species;
- The low frequency of occurrence of these SCI bird species recorded on lands located within the footprint of the Proposed Scheme, suggests that these species do not regularly use or rely upon these lands as foraging and/or roosting habitat, and are likely to use other suitable sites available in the wider area on a similar or more regular basis; and
- Landtake in these areas is temporary in nature and will be returned to its original state during the Operational Phase of the Proposed Scheme.

#### 7.10.3.3 Disturbance and displacement impacts

368 A temporary and / or permanent increase in noise, vibration and / or human activity levels during the construction and / or operation of the Proposed Scheme could result in the disturbance to and / or displacement of SCI bird species present within footprint and / or the vicinity of the Proposed Scheme. Potential for such disturbance effects would not be expected to extend beyond a distance of approximately 300m, as noise levels associated with general Construction activities would attenuate to close to background levels at that distance and beyond. The Operational Phase is not deemed to result in significant changes to existing noise levels due to the urban locality of the Proposed Scheme as an existing transport route. Table 16 in Section 7.4.3.4 of this NIS provides the predicted construction noise limits associated with different construction activities of the Proposed Scheme.

369 Skerries Islands SPA is designated for wintering Special Conservation Interest species that are known to forage and / or roost at inland sites across Dublin, such as amenity grassland playing pitches. These species

include light-bellied Brent goose and herring gull. There are areas of suitable foraging, and / or roosting habitat for these species within the footprint of the Proposed Scheme.

370 As records of SCI bird species associated with Skerries Islands SPA have been returned from the desk study in the vicinity of the Proposed Scheme (i.e., light-bellied Brent goose and herring gull), it is likely that Special Conservation Interest bird species associated with Skerries Islands SPA currently utilise suitable lands in the wider area. However, no significant effects will occur on any Special Conservation Interest bird species populations of Skerries Islands SPA, in light of their conservation objectives, as a consequence of the disturbance and / or displacement from inland feeding / roosting sites due to increased levels of disturbance due to the following reasons:

- For the majority of construction activities, any wintering birds present at a distance of 50m or more from the edge of works (where noise levels will be between 50dB and 70dB) would experience only a moderate effect / level of response, i.e., birds becoming alert and some behavioural changes (e.g., reduced feeding activity), but birds would be expected to habituate to noise levels within this range. Within a 50m distance from the edge of works (where construction noise levels will be above 70dB) birds would be likely to move out of the affected zone, or leave the site altogether. Therefore, the worst-case exclusion or displacement of birds due to noise impacts during construction works would be for birds using the zone within 50m of the edge of construction works only, with birds likely to only experience a moderate effect / level of response from areas beyond this 30m distance as a result of noise impacts[32];
- The low numbers of species recorded using the sites surveyed within the footprint of the Proposed Scheme (e.g., CBC1012WB001, CBC1012WB002 and CBC1012WB003), during field surveys undertaken in both the 2020-2021 and 2021-2022 winter seasons, which suggests that these species do not regularly use or rely upon these lands as foraging and / or roosting habitat, and are likely to use other suitable sites available in the wider area on a similar or more regular basis;
- The availability of large areas of suitable foraging and / or roosting habitat for these Special Conservation Interest bird species in the wider locality of the Proposed Scheme, including those in closer proximity to nearby SPAs. These include other similar public amenity grassland parks and sports pitches such as the documented *ex-situ* wintering bird site at Tymon Park as well as Templeogue College, Eammon Ceannt Park, St Marys College RFC and Leinster Cricket Ground; and,
- The short-term nature of any disturbance related impacts associated with the construction of the Proposed Scheme, which is expected to last for 24 months. Following the completion of construction, disturbance levels will over time return to baseline conditions and as a result suitable lands will become available again as foraging and / or roosting habitat for these Special Conservation Interest species.

#### 7.10.3.4 Summary

371 Table 29 presents a summary of the potential impacts of the Proposed Scheme on the Special Conservation Interests of Skerries Islands SPA, and how these impacts relate to affecting the site's conservation objectives.

[32] Based on current understanding of construction related noise disturbance to wintering waterbirds is based on the research presented in Cutts *et al*. (2009) and Wright *et al*. (2010).

***Table 29: Potential Impacts / Effects on the Conservation Objectives of Skerries Islands SPA***

| **Conservation Objectives**<br>**Attribute / Measure / Target** | **Potential Impacts Requiring Mitigation?** | **Are mitigation measures required?** | **Residual Impacts?** |
|---|---|---|---|
| **Skerries Islands SPA** | | | |
| **Cormorant (*Phalacrocorax* carbo) [A017], Shag (*Phalacrocorax aristotelis*) [A018], Light-bellied Brent Goose (*Branta bernicla hrota*) [A046], Purple Sandpiper (*Calidris maritima*) [A148], Turnstone (*Arenaria interpres*) [A169] and Herring Gull (*Larus argentatus*) [A184]**<br>There is no site-specific conservation objectives document available for this SPA. Therefore, the attributes, measures and targets below have been developed based on the specific conservation objectives available for Rogerstown Estuary SPA [004015] | | | |
| Population trend / Percentage change / Long term population trend stable or increasing | Yes<br>In a worst-case scenario, an accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay, which SCI birds may utilise outside of their core SPA foraging areas. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quantity and quality of prey fish species and the quality the of intertidal / coastal habitats that support the Special Conservation Interest bird species of the SPA. This could potentially affect the use of habitat areas by birds and have long-term effects on the SPA populations. | Yes<br>The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | No |
| Distribution / Range, timing and intensity of use of areas / No significant decrease in the range, timing and intensity of use of areas by all of the above-named species, other than that occurring from natural patterns of variation | | | |

*7.10.4 Mitigation Measures*

372 This Section presents the mitigation measures that will be implemented during Construction and Operation to avoid or reduce the potential impacts of the Proposed Scheme on Skerries Islands SPA. All of the mitigation measures will be implemented in full and are best practice, and tried and tested, effective control measures to protect the receiving environment.

Measures to Protect surface Water Quality during Construction

373 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during Construction of the Proposed Scheme.

Measures to Protect Surface Water Quality during Operation

374 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during Operation of the Proposed Scheme.

*7.10.5 Residual Impacts*

375 With the effective implementation of appropriate mitigation measures identified in this NIS, the Proposed Scheme poses no risk of affecting the conservation objectives, or the favourable conservation condition, of the Special Conservation Interests of Skerries Islands SPA, and there are therefore, no residual direct or indirect impacts associated with the Proposed Scheme that could adversely affect the integrity of Skerries Islands SPA. As is confirmed by the Water Framework Directive Assessment for the Proposed Scheme (refer to Appendix V), the proposed Scheme will not cause a deterioration in status in any water body, will not prevent any water body from achieving good ecological status or good ecological potential, and it can be concluded that the Proposed Scheme complies with all requirements of the WFD.

*7.10.6 Conclusion of Assessment for Skerries Islands SPA*

376 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the Special Conservation Interests of Skerries Islands SPA, the potential impacts and mitigation measures, and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the Special Conservation Interests, it has been concluded that the Proposed Scheme does not pose a risk of adversely affecting (either directly or indirectly) the integrity of Skerries Islands SPA.

## 7.11 Ireland's Eye SPA [004117] and Lambay Island SPA [004069]

*7.11.1 Ecological Baseline Description for Ireland's Eye SPA*

377 According to the Natura 2000 Standard Data Form (NPWS, 2020l), this SPA is a small uninhabited island located approximately 1.5km north of Howth Head. The main habitat on the island is a mix of dry grassland and bracken. There are impressive cliff formations along the northern and eastern sides of the island. This SPA has a large seabird colony, with 11 species breeding regularly. It is designated for breeding populations of cormorant, herring gull, kittiwake, guillemot and razorbill. Major threats to the site include walking, horse riding and non-motorised vehicles and leisure fishing.

*7.11.2 Ecological Baseline Description for Lambay Island SPA*

378 According to the Natura 2000 Standard Data Form (NPWS, 2020m), this SPA is an island located approximately 4km off the north Dublin coastline. Habitats present on the island include rocky shorelines, low tide sandflats and fertile grassland. The northern, eastern and southern shorelines consist of steep cliffs. The predominant land use of the island is cattle grazing. This SPA has one of the most important seabird colonies in Ireland, with 12 species breeding regularly. It has been designated for breeding populations of fulmar *Fulmarus glacialis*, cormorant, shag, greylag goose *Anser anser*, lesser black-backed gull, herring gull, kittiwake, guillemot, razorbill and puffin *Fratercula arctica*.

### *7.11.3 Special Conservation Interests and Conservation Objectives of Ireland's Eye SPA and Lambay Island SPA*

379 The Special Conservation Interests of Ireland's Eye SPA and Lambay Island SPA, and the overall conservation objectives, are listed in Table 30.

***Table 30: Special Conservation Interests and Conservation Objectives of Ireland's Eye SPA and Lambay Island SPA***

| Special Conservation Interest(s) | Conservation Objective(s) |
|---|---|
| **Ireland's Eye SPA [004117]**<br>A017 Cormorant *Phalacrocorax carbo*<br>A184 Herring Gull *Larus argentatus*<br>A188 Kittiwake *Rissa tridactyla*<br>A199 Guillemot *Uria aalge*<br>A200 Razorbill *Alca torda*<br><br>*S.I. No. 240 / 2010 – European Communities (Conservation of Wild Birds (Ireland's Eye Special Protection Area 004117) Regulations 2010.*<br>NPWS (2022d) *Conservation objectives for Ireland's Eye SPA [004117].* First Order Site-specific Conservation Objectives. Version 1. Department of Housing, Local Government and Heritage. | To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA |
| **Lambay Island SPA [004069]**<br>A009 Fulmar *Fulmarus glacialis*<br>A017 Cormorant *Phalacrocorax carbo*<br>A018 Shag *Phalacrocorax aristotelis*<br>A043 Greylag Goose *Anser anser*<br>A183 Lesser Black-backed Gull *Larus fuscus*<br>A184 Herring Gull *Larus argentatus*<br>A188 Kittiwake *Rissa tridactyla*<br>A199 Guillemot *Uria aalge*<br>A200 Razorbill *Alca torda*<br>A204 Puffin *Fratercula arctica*<br><br>*S.I. No. 242 / 2010 – European Communities (Conservation of Wild Birds (Lambay Island Special Protection Area 004069)) Regulations 2010.*<br>NPWS (2022e) *Conservation objectives for Lambay Island SPA [004069].* First Order Site-specific Conservation Objectives. Version 1. Department of Housing, Local Government and Heritage. | To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA |

380 In conjunction with considering the generic conservation objective for this SPA "To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA", the site-specific conservation objectives documents for several European sites designated for similar SCI bird species to that of Ireland's Eye SPA and Lambay Island SPA to inform this assessment. These European sites are identified in Table 31.

381 The site-specific conservation objectives document sets out the attributes, measures and targets that define the favourable conservation condition of the Special Conservation Interests within the European site. Affecting the conservation condition of the Special Conservation Interests would constitute an adverse

effect on the integrity of a European site. The specific attributes and targets used to define the conservation objectives of the Special Conservation Interests of Ireland's Eye SPA and Lambay Island SPA are presented in Section 7.11.4.4.

### *7.11.4 Examination and Analysis of Potential Direct and Indirect Impacts*

382 The direct and / or indirect impacts by which the Proposed Scheme could (in the absence of mitigation measures) potentially affect the conservation objective attributes and targets supporting the conservation condition of the Special Conservation Interests of Ireland's Eye SPA and Lambay Island SPA, are:

- Habitat degradation / effects on SCI species as a result of hydrological impacts;
- Habitat loss and fragmentation; and,
- Disturbance and displacement impacts.

#### 7.11.4.1 Habitat degradation / effects on SCI species as a result of hydrological impacts

383 The release of contaminated surface water runoff and / or an accidental spillage or pollution event into any surface water features during Construction, or Operation, has the potential to affect water quality in the receiving aquatic environment. Such a pollution event may include: the release of sediment into receiving waters and the subsequent increase in mobilised suspended solids; and the accidental spillage and / or leaks of contaminants into receiving waters. The associated effects of a reduction of surface water quality could potentially extend for a considerable distance downstream of the location of the accidental pollution event or the discharge. The Proposed Scheme is hydrologically connected to Dublin Bay, Owenadoher River, River Dodder, the Grand Canal as well as the Liffey Estuary Upper and Lower as well as a network of interconnecting and established surface or combined sewer / surface water pipes.

384 Therefore, (albeit unlikely) this reduction in water quality (either alone or in combination with other pressures on water quality) could result in the degradation of sensitive habitats present within Dublin Bay. As a worst-case scenario there is potential to affect mobile Special Conservation Interest bird species that commute, forage and loaf in Dublin Bay. It could also negatively affect the quantity and quality of prey available to Special Conservation Interest bird species. These potential impacts could occur to such a degree that they result in significant effects which could have implications for the conservation objectives of Ireland's Eye SPA and Lambay Island SPA.

#### 7.11.4.2 Habitat loss and fragmentation

385 Ireland's Eye SPA and Lambay Island SPA are designated for wintering Special Conservation Interest species that are known to forage and / or roost at inland sites across Dublin, such as amenity grassland playing pitches. These species include herring gull and lesser-black-backed gull. There are three areas of suitable foraging, and / or roosting habitat for these species within the footprint of the Proposed Scheme, composing grassland habitats (CBC1012WB001, CBC1012WB002, and CBC1012WB003).

386 The Proposed Scheme will result in the short-term loss of approximately 0.455ha in total of largely GA2 habitat suitable to support breeding gull and wintering bird species (e.g., light-bellied Brent goose) as a result of the installation of Construction Compound TR3. The other areas of open territory where wintering bird surveys were undertaken will not directly impact wintering birds as they are small in extent and outside the Proposed Scheme Boundary (CBC1012WB002) or the territory in them that is being lost is not suitable to support wintering bird species (CBC1012WB003).

387 There is no potential for impacts to occur on inland feeding Special Conservation Interest populations associated with Ireland's Eye SPA or Lambay Island SPA, in light of their conservation objectives, as a consequence of habitat loss / fragmentation of inland feeding / roosting sites due to the following reasons:

- According to the data collected during wintering bird surveys undertaken during both the 2020-2021 and 2021-2022 wintering bird seasons, none of the sites to be lost are significant inland foraging resource for wintering bird species, given the low numbers of wintering bird species recorded, with respect to their national and international populations. Therefore, the temporary

loss of this site during the Construction of the Proposed Scheme will not result in any likely significant effect on the conservation status of any wintering bird species or undermine the conservation objectives of any SPAs in the vicinity which are designated for this species;

- The low frequency of occurrence of these SCI bird species recorded on lands located within the footprint of the Proposed Scheme, suggests that these species do not regularly use or rely upon these lands as foraging and/or roosting habitat, and are likely to use other suitable sites available in the wider area on a similar or more regular basis; and
- Landtake in these areas is temporary in nature and will be returned to its original state during the Operational Phase of the Proposed Scheme.

#### 7.11.4.3 Disturbance and displacement impacts

388 A temporary and / or permanent increase in noise, vibration and / or human activity levels during the construction and / or operation of the Proposed Scheme could result in the disturbance to and / or displacement of Special Conservation Interest bird species present within footprint and / or the vicinity of the Proposed Scheme. Potential for such disturbance effects would not be expected to extend beyond a distance of approximately 300m, as noise levels associated with general Construction activities would attenuate to close to background levels at that distance and beyond. The Operational Phase is not deemed to result in significant changes to existing noise levels due to the urban locality of the Proposed Scheme as an existing transport route.

389 Table 16 in Section 7.4.3.4 of this NIS provides the predicted construction noise limits associated with different Construction activities of the Proposed Scheme.

390 Ireland's Eye SPA and Lambay Island SPA are designated for wintering Special Conservation Interest species that are known to forage and / or roost at inland sites across Dublin, such as amenity grassland playing pitches. These species include herring gull and lesser black-backed gull. There are areas of suitable foraging, and / or roosting habitat for these species within the footprint of the Proposed Scheme.

391 As records of Special Conservation Interest bird species associated with Ireland's Eye SPA and Lambay Island SPA have been returned from the desk study in the vicinity of the Proposed Scheme (i.e., herring gull), it is considered to be possible that Special Conservation Interest species associated with Ireland's Eye SPA and Lambay Island SPA currently utilise these and other suitable lands in the wider area. However, no significant effects will occur on any Special Conservation Interest bird species populations of Ireland's Eye SPA or Lambay Island SPA, in light of their conservation objectives, as a consequence of the disturbance and / or displacement from inland feeding / roosting sites due to the following reasons:

- For the majority of construction activities, any wintering birds present at a distance of 50m or more from the edge of works (where noise levels will be between 50dB and 70dB) would experience only a moderate effect / level of response, i.e., birds becoming alert and some behavioural changes (e.g., reduced feeding activity), but birds would be expected to habituate to noise levels within this range. Within a 50m distance from the edge of works (where construction noise levels will be above 70dB) birds would be likely to move out of the affected zone, or leave the site altogether. Therefore the worst-case exclusion or displacement of birds due to noise impacts during construction works would be for birds using the zone within 50m of the edge of construction works only, with birds likely to only experience a moderate effect / level of response from areas beyond this 30m distance as a result of noise impacts[33];
- The low numbers of species recorded using the sites surveyed within the footprint of the Proposed Scheme (e.g., CBC1012WB001, CBC1012WB002 and CBC1012WB003), during field surveys

[33] Based on current understanding of construction related noise disturbance to wintering waterbirds is based on the research presented in Cutts *et al*. (2009) and Wright *et al*. (2010).

undertaken in both the 2020-2021 and 2021-2022 winter seasons, which suggests that these species do not regularly use or rely upon these lands as foraging and / or roosting habitat, and are likely to use other suitable sites available in the wider area on a similar or more regular basis;

- The availability of large areas of suitable foraging and / or roosting habitat for these Special Conservation Interest bird species in the wider locality of the Proposed Scheme, including those in closer proximity to nearby SPAs. These include other similar public amenity grassland parks and sports pitches such as the documented *ex-situ* wintering bird site at Tymon Park as well as Templeogue College, Eammon Ceannt Park, St Marys College RFC and Leinster Cricket Ground; and,
- The short-term nature of any disturbance related impacts associated with the construction of the Proposed Scheme, which is expected to last for 24 months. Following the completion of construction, disturbance levels will over time return to baseline conditions and as a result suitable lands will become available again as foraging and / or roosting habitat for these Special Conservation Interest species.

#### 7.11.4.4 Summary

392 Table 31 presents a summary of the potential impacts of the Proposed Scheme on the Special Conservation Interests of Ireland's Eye SPA and Lambay Island SPA, and how these impacts relate to affecting the site's conservation objectives.

***Table 31: Potential Impacts / Effects on the Conservation Objectives of Ireland's Eye SPA and Lambay Island SPA***

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| **Ireland's Eye SPA** | | | |
| **Cormorant [A017], Herring Gull [A184], Kittiwake [A188], Guillemot [A199], Razorbill [A200]**<br>There is no site-specific conservation objectives document available for this SPA. Therefore, the attributes, measures and targets below have been developed based on the specific conservation objectives available for Rogerstown Estuary SPA [004015] | | | |
| Population trend / Percentage change / Long term population trend stable or increasing<br><br>Distribution / Range, timing and intensity of use of areas / No significant decrease in the range, timing and intensity of use of areas by all of the above-named species, other than that occurring from natural patterns of variation | Yes<br>In a worst-case scenario, an accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay, which SCI birds may utilise outside of their core SPA foraging areas. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quantity and quality of prey fish species and the quality the of intertidal / coastal habitats that support the Special Conservation Interest bird species of the SPA. This could potentially affect the use of habitat areas by birds and have long-term effects on the SPA populations. | Yes<br>The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | No |
| **Lambay Island SPA** | | | |
| **Fulmar [A009], Cormorant [A017], Shag [A018], Greylag Goose [A043], Lesser Black-backed Gull [A183], Herring Gull [A184], Kittiwake [A188], Guillemot [A199], Razorbill [A200], Puffin [A204]**<br>There is no site-specific conservation objectives document available for this SPA. Therefore, the attributes, measures and targets below have been developed based on the specific conservation objectives available for Rogerstown Estuary SPA [004015] | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| Population trend / Percentage change / Long term population trend stable or increasing | Yes<br>In a worst-case scenario, an accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay, which SCI birds may utilise outside of their core SPA foraging areas. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quantity and quality of prey fish species and the quality the of intertidal / coastal habitats that support the Special Conservation Interest bird species of the SPA. This could potentially affect the use of habitat areas by birds and have long-term effects on the SPA populations. | Yes<br>The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | No |
| Distribution / Range, timing and intensity of use of areas / No significant decrease in the range, timing and intensity of use of areas by all of the above-named species, other than that occurring from natural patterns of variation | | | |

### *7.11.5 Mitigation Measures*

393 This Section presents the mitigation measures that will be implemented during Construction and Operation to avoid or reduce the potential impacts of the Proposed Scheme on Ireland's Eye SPA and Lambay Island SPA. All of the mitigation measures will be implemented in full and are best practice, and tried and tested, effective control measures to protect the receiving environment.

Measures to Protect Surface Water Quality during Construction

394 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during Construction of the Proposed Scheme.

Measures to Protect Surface Water Quality during Operation

395 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during Operation of the Proposed Scheme.

### *7.11.6 Residual Impacts*

396 With the effective implementation of appropriate mitigation measures identified in this NIS, the Proposed Scheme poses no risk of affecting the conservation objectives, or the favourable conservation condition, of the Special Conservation Interests of Ireland's Eye SPA or Lambay Island SPA, and there are therefore, no residual direct or indirect impacts associated with the Proposed Scheme that could adversely affect the integrity of Ireland's Eye SPA or Lambay Island SPA. As is confirmed by the Water Framework Directive Assessment for the Proposed Scheme (refer to Appendix V), the proposed Scheme will not cause a deterioration in status in any water body, will not prevent any water body from achieving good ecological status or good ecological potential, and it can be concluded that the Proposed Scheme complies with all requirements of the WFD.

### *7.11.7 Conclusion of Assessment for Ireland's Eye SPA or Lambay Island SPA*

397 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the Special Conservation Interests of Ireland's Eye SPA or Lambay Island SPA, the potential impacts and mitigation measures, and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the Special Conservation Interest, it has been concluded that the Proposed Scheme does not pose a risk of adversely affecting (either directly or indirectly) the integrity of Ireland's Eye SPA or Lambay Island SPA.

## **7.12 The Murrough SPA [004186]**

### *7.12.1 Ecological Baseline Description for The Murrough SPA*

398 According to the Natura 2000 Standard Data Form (NPWS, 2020n), this SPA comprises a coastal wetland complex stretching for 13km from Kilcoole train station southwards towards Wicklow town. The site extends between the 200metre low water mark inland up to 1km in places. In terms of habitat diversity it includes the coastal water, a shingle shore with some sand and cobble. The SPA is bisected by the Dublin Rosslare railway line which runs along the upper part of the shingle beach. Much of the low-lying land behind the railway is manged for agriculture including reclaimed wetland, although a number of wet and brackish marshes remain including Broad Lough at its southern end and the manged wetland complex associated with Kilcoole reserve. This extensive coastal wetland complex is considered oh high importance owing to the numbers and variety of waterfowl species that it holds in winter and on passage. Its shingle beach also supports the country largest breeding colony of little tern. The main threats listed for the site include: the presence of railway lines, fertilisation of agricultural lands and the presence of walkers, horse riders and non-motorised vehicles.

### *7.12.2 Special Conservation Interests and Conservation Objectives for The Murrough SPA*

399 The Special Conservation Interests of The Murrough SPA and the overall conservation objectives are listed in Table 32.

***Table 32: Special Conservation Interests and Conservation Objectives of The Murrough SPA***

| Special Conservation Interests | Conservation Objective(s) |
|---|---|
| **The Murrough SPA [004186]**<br>A001 Red-throated Diver *Gavia stellata*<br>A043 Greylag Goose *Anser anser*<br>A046 Light Bellied Brent Goose *Branta bernicla hrota*<br>A050 Wigeon *Anas penelope*<br>A052 Teal *Anas crecca*<br>A179 Black-headed Gull *Chroicocephalus ridibundus*<br>A162 Herring Gull *Larus argentatus*<br>A195 Little Tern *Sterna albifrons*<br>A999 Wetlands<br><br>*S.I. No. 298 / 2011 – European Communities (Conservation of Wild Birds (The Murrough Special Protection Area 004186)) Regulations 2011.*<br>NPWS (2022f) *Conservation objectives for The Murrough SPA [004186].* First Order Site-specific Conservation Objectives. Version 1. Department of Housing, Local Government and Heritage. | To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.<br><br>To maintain or restore to favourable conservation condition of the wetland habitat at The Murrough SPA as a resource for the regularly occurring migratory waterbirds that utilise it. |

400 In conjunction with considering the generic conservation objective for this SPA "To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.", the site-specific conservation objectives documents for a number of European sites (identified in Table 33) also informed this assessment.

401 The site-specific conservation objectives document sets out the attributes, measures and targets that define the favourable conservation condition of the Special Conservation Interests within the European site. Affecting the conservation condition of the Special Conservation Interests is deemed to constitute an adverse effect on the integrity of a European site. The specific attributes and targets used to define the conservation objectives of the SCIs in respect of The Murrough SPA are presented in Section 7.12.3.4.

### *7.12.3 Examination and Analysis of Potential Direct and Indirect Impacts*

402 The direct and / or indirect impacts by which the Proposed Scheme could (in the absence of mitigation measures) potentially affect the conservation objective attributes and targets supporting the conservation condition of the Special Conservation Interests for The Murrough SPA are:

- Habitat degradation / effects on SCI species as a result of hydrological impacts;
- Habitat loss and fragmentation; and,
- Disturbance and displacement impacts.

#### 7.12.3.1 Habitat degradation / effects on SCI species as a result of hydrological impacts

403 The release of contaminated surface water runoff and / or an accidental spillage or pollution event into any surface water features during Construction, or Operation, has the potential to affect water quality in the receiving aquatic environment. Such a pollution event may include: the release of sediment into receiving waters and the subsequent increase in mobilised suspended solids; and the accidental spillage

and / or leaks of contaminants into receiving waters. The associated effects of a reduction of surface water quality could potentially extend for a considerable distance downstream of the location of the accidental pollution event or the discharge. The Proposed Scheme is hydrologically connected to Dublin Bay via the Owenadoher River, River Dodder, the Grand Canal as well as the Liffey Estuary Upper and Lower as well as a network of interconnecting and established surface or combined sewer / surface water pipes.

404 Therefore, (albeit unlikely) this reduction in water quality (either alone or in combination with other pressures on water quality) could result in the degradation of sensitive habitats present within Dublin Bay. As a worst-case scenario there is potential to affect mobile Special Conservation Interest bird species that commute, forage and loaf in Dublin Bay. It could also negatively affect the quantity and quality of prey available to Special Conservation Interest bird species. These potential impacts could occur to such a degree that they result in significant effects which could have implications for the conservation objectives of The Murrough SPA.

#### 7.12.3.2 Habitat Loss and Fragmentation

405 The Murrough SPA is designated for wintering SCI species that are known to forage and / or roost at inland sites across Dublin, such as amenity grassland playing pitches. These species include including light-bellied Brent goose, black-headed gull and herring gull. There are three areas of suitable foraging, and / or roosting habitat for these species within the footprint of the Proposed Scheme, composing grassland habitats (CBC1012WB001, CBC1012WB002, and CBC1012WB003).

406 The Proposed Scheme will result in the short-term loss of approximately 0.455ha in total of largely GA2 habitat suitable to support breeding gull and wintering bird species (e.g. light-bellied Brent goose) as a result of the installation of Construction Compound TR3. The other areas of open territory where wintering bird surveys were undertaken will not directly impact wintering birds as they are small in extent and outside the Proposed Scheme Boundary (CBC1012WB002) or the territory in them that is being lost is not suitable to support wintering bird species (CBC1012WB003).

407 There is no potential for impacts to occur on inland feeding Special Conservation Interest populations associated with The Murrough SPA, in light of their conservation objectives, as a consequence of habitat loss / fragmentation of inland feeding / roosting sites due to the following reasons:

- According to the data collected during wintering bird surveys undertaken during both the 2020-2021 and 2021-2022 wintering bird seasons, none of the sites to be lost are significant inland foraging resource for wintering bird species, given the low numbers of wintering bird species recorded, with respect to their national and international populations. Therefore, the temporary loss of this site during the construction of the Proposed Scheme will not result in any likely significant effect on the conservation status of any wintering bird species or undermine the conservation objectives of any SPAs in the vicinity which are designated for this species;
- The low frequency of occurrence of these SCI bird species recorded on lands located within the footprint of the Proposed Scheme, suggests that these species do not regularly use or rely upon these lands as foraging and/or roosting habitat, and are likely to use other suitable sites available in the wider area on a similar or more regular basis; and
- Landtake in these areas is temporary in nature and will be returned to its original state during the Operational Phase of the Proposed Scheme.

#### 7.12.3.3 Disturbance and Displacement impacts

408 A temporary and / or permanent increase in noise, vibration and / or human activity levels during the Construction and / or Operation of the Proposed Scheme could result in the disturbance to and / or displacement of SCI bird species present within footprint and / or the vicinity of the Proposed Scheme. Potential for such disturbance effects would not be expected to extend beyond a distance of approximately 300m, as noise levels associated with general Construction activities would attenuate to close to background levels at that distance and beyond. The Operational Phase is not deemed to result in significant

changes to existing noise levels due to the urban locality of the Proposed Scheme as an existing transport route.

409 Table 16 in Section 7.4.3.4 of this NIS provides the predicted construction noise limits associated with different Construction activities of the Proposed Scheme.

410 The Murrough SPA is designated for a number of wintering Special Conservation Interest species that it is considered could forage and / or roost at inland sites across Dublin, such as amenity grassland playing pitches. These species include light-bellied Brent goose, black headed and herring gull. There are areas of suitable foraging, and / or roosting habitat for these species within the footprint of the Proposed Scheme.

411 As records of Special Conservation Interest bird species associated with The Murrough SPA have been returned from the desk study in the vicinity of the Proposed Scheme (i.e., light-bellied Brent goose and black-headed gull), it is likely that Special Conservation Interest bird species associated with The Murrough SPA currently utilise suitable lands in the wider area. However, no significant effects will occur on any Special Conservation Interest bird species populations of The Murrough SPA, in light of their conservation objectives, as a consequence of the disturbance and / or displacement from inland feeding / roosting sites due to increased levels of disturbance due to the following reasons:

- For the majority of construction activities, any wintering birds present at a distance of 50m or more from the edge of works (where noise levels will be between 50dB and 70dB) would experience only a moderate effect / level of response, i.e., birds becoming alert and some behavioural changes (e.g., reduced feeding activity), but birds would be expected to habituate to noise levels within this range. Within a 50m distance from the edge of works (where construction noise levels will be above 70dB) birds would be likely to move out of the affected zone, or leave the site altogether. Therefore the worst-case exclusion or displacement of birds due to noise impacts during construction works would be for birds using the zone within 50m of the edge of construction works only, with birds likely to only experience a moderate effect / level of response from areas beyond this 30m distance as a result of noise impacts[34];
- The low numbers of species recorded using the sites surveyed within the footprint of the Proposed Scheme (e.g., CBC1012WB001, CBC1012WB002 and CBC1012WB003), during field surveys undertaken in both the 2020-2021 and 2021-2022 winter seasons, which suggests that these species do not regularly use or rely upon these lands as foraging and / or roosting habitat, and are likely to use other suitable sites available in the wider area on a similar or more regular basis;
- The availability of large areas of suitable foraging and / or roosting habitat for these Special Conservation Interest bird species in the wider locality of the Proposed Scheme, including those in closer proximity to nearby SPAs. These include other similar public amenity grassland parks and sports pitches such as the documented *ex-situ* wintering bird site at Tymon Park as well as Templeogue College, Eammon Ceannt Park, St Marys College RFC and Leinster Cricket Ground; and,
- The short-term nature of any disturbance related impacts associated with the construction of the Proposed Scheme, which is expected to last for 24 months. Following the completion of Construction, disturbance levels will over time return to baseline conditions and as a result suitable lands will become available again as foraging and / or roosting habitat for these Special Conservation Interests species.

[34] Based on current understanding of construction related noise disturbance to wintering waterbirds is based on the research presented in Cutts *et al*. (2009) and Wright *et al*. (2010).

#### 7.12.3.4 Summary

412 Table 33 presents a summary of the potential impacts of the Proposed Scheme on the Special Conservation Interests of The Murrough SPA, and how these impacts relate to affecting the site's conservation objectives.

***Table 33: Potential Impacts / Effects on the Conservation Objectives of The Murrough SPA***

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| **The Murrough SPA** | | | |
| **Red-throated Diver [A001]; Greylag Goose [A043]; Light-Bellied Brent Goose [A046]; Wigeon [A050]; Teal [A052]; Black-Headed Gull [179]; Herring Gull [184]; Little Tern [A195]**<br>There is no site-specific conservation objectives document available for this SPA. Therefore, the attributes, measures and targets below have been developed based on the specific conservation objectives available for The Raven SPA [004019] (NPWS, 2012b); Rogerstown Estuary SPA [004015] (NPWS, 2013i); South Dublin Bay and River Tolka Estuary SPA [004024] (NPWS, 2015a); Wexford Harbour and Slobs SPA [004076] (NPWS, 2012c); North Bull Island SPA [004006] (NPWS, 2015b); and Boyne Estuary SPA [004080] (NPWS, 2013j) | | | |
| Population trend / % change / Long term population trend stable or increasing | Yes<br>In a worst-case scenario, an accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay, which SCI birds may utilise outside of their core SPA foraging areas. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quantity and quality of prey fish species and the quality the of intertidal / coastal habitats that support the Special Conservation Interest bird species of the SPA. This could potentially affect the use of habitat areas by birds and have long-term effects on the SPA populations. | Yes<br>The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | No |
| Distribution / Number and range of areas used by waterbirds / There should be no significant decrease in the numbers or range of areas used by waterbird species, other than that occurring from natural patterns of variation. | | | |
| Distribution/Range, timing and intensity of use of areas/No significant decrease in the range, timing and intensity of use of areas by all of the above-named species, other than that occurring from natural patterns of variation<br><br>(For Little Tern) Breeding population abundance: Productivity Rate, Distribution of Breeding Colonies, Prey biomass availability, barriers to connectivity, disturbance at the breeding sites. | | | |

#### *7.12.4 Mitigation Measures*

413 This section presents the mitigation measures that will be implemented during Construction and Operation to avoid or reduce the potential impacts of the Proposed Scheme on The Murrough SPA. All of the mitigation measures will be implemented in full and are best practice, and tried and tested, effective control measures to protect the receiving environment.

Measures to Protect Surface Water Quality during Construction

414 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during Construction of the Proposed Scheme.

Measures to Protect Surface Water Quality during Operation

415 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during Operation of the Proposed Scheme.

#### *7.12.5 Residual Impacts*

416 With the effective implementation of appropriate mitigation measures identified in this NIS, the Proposed Scheme poses no risk of affecting the conservation objectives, or the favourable conservation condition, of the Special Conservation Interests of The Murrough SPA, and there are therefore, no residual direct or indirect impacts associated with the Proposed Scheme that could adversely affect the integrity of The Murrough SPA. As is confirmed by the Water Framework Directive Assessment for the Proposed Scheme (refer to Appendix V), the proposed Scheme will not cause a deterioration in status in any water body, will not prevent any water body from achieving good ecological status or good ecological potential, and it can be concluded that the Proposed Scheme complies with all requirements of the WFD.

#### *7.12.6 Conclusion of Assessment for The Murrough SPA*

417 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the SCIs of The Murrough SPA, the potential impacts and mitigation measures, and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the Special Conservation Interests, it has been concluded that the Proposed Scheme does not pose a risk of adversely affecting (either directly or indirectly) the integrity of The Murrough SPA.

# 8 Summary of Mitigation Measures and Residual Impacts

## 8.1 Summary of Mitigation Measures

418 This section summarises the mitigation measures that will be implemented during the Construction and Operation to avoid or reduce the potential impacts of the Proposed Scheme on the European sites as already set out throughout Section 7. A matrix of mitigation measures is provided in Table 34, identifying the specific mitigation measures required for each relevant European site.

419 All of the mitigation measures will be implemented in full and are best practice, and tried and tested, effective control measures to protect the receiving environment. Mitigation measures and associated Management Plans are included within the Construction Environmental Management Plan (CEMP) provided in Appendix III, all of which shall, at a minimum, be implemented during the Construction Phase of the Proposed Scheme.

***Table 34: Matrix of Mitigation Measures and Residual Impacts***

| European site | Potential Impacts | | | | | | | | | | | | Any adverse effect on the integrity of European sies (post mitigation) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Construction | | | | | | Operation | | | | | | |
| | Habitat Loss and Fragmentation | Hydrology | Hydro-geology | Non-native Invasive Species | Air Quality | Disturbance / Displacement | Habitat Loss and Fragmentation | Hydrology | Hydro-geology | Non-native Invasive Species | Air Quality | Disturbance / Displacement | |
| *North Dublin Bay SAC* | X | ✓ Section 7.1.4 / Section 5.4 of CEMP | X | ✓ Section 7.1.4 / Section 5.3 of the CEMP | X | X | X | ✓ Section 7.1.4 / Section 5.4 of CEMP | X | ✓ Section 7.1.4 / Section 5.3 of the CEMP | X | X | No |
| *South Dublin Bay SAC* | X | ✓ Section 7.1.4 / Section 5.4 of CEMP | X | ✓ Section 7.1.4 / Section 5.3 of the CEMP | X | X | X | ✓ Section 7.1.4 / Section 5.4 of CEMP | X | ✓ Section 7.1.4 / Section 5.3 of the CEMP | X | X | No |
| *Rockabill to Dalkey Island SAC* | X | ✓ Section 7.1.4 / Section 5.4 of CEMP | X | X | X | X | X | ✓ Section 7.1.45 / Section 5.4 of CEMP | X | X | X | X | No |
| *Lambay Island SAC* | X | ✓ Section 7.1.4 / Section 5.4 of CEMP | X | X | X | X | X | ✓ Section 7.1.4 / Section 5.4 of CEMP | X | X | X | X | No |
| *Wicklow Mountains SAC* | x | ✓ Section 7.1.4 / Section 5.4 of CEMP | x | x | x | ✓ Section 7.3.4 | x | ✓ Section 71.4 / Section 5.4 of CEMP | x | x | x | ✓ Section 7.3.4 | No |

| European site | Potential Impacts | | | | | | | | | | | | Any adverse effect on the integrity of European sies (post mitigation) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Construction | | | | | | Operation | | | | | | |
| | Habitat Loss and Fragmentation | Hydrology | Hydro-geology | Non-native Invasive Species | Air Quality | Disturbance / Displacement | Habitat Loss and Fragmentation | Hydrology | Hydro-geology | Non-native Invasive Species | Air Quality | Disturbance / Displacement | |
| *South Dublin Bay and River Tolka Estuary SPA* | X | ✓ Section 7.1.4 / Section 5.4 of CEMP | X | ✓ Section 7.1.4 / Section 5.3 of the CEMP | X | X | X | ✓ Section 7.1.4 / Section 5.4 of CEMP | X | ✓ Section 7.1.4 / Section 5.3 of the CEMP | X | X | No |
| *North Bull Island SPA* | X | ✓ Section 71.4 / Section 5.4 of CEMP | X | ✓ Section 7.1.4 / Section 5.3 of the CEMP | X | X | X | ✓ Section 7.1.4 / Section 5.4 of CEMP | X | ✓ Section 7.1.4 / Section 5.3 of the CEMP | X | X | No |
| *Howth Head Coast SPA* | X | ✓ Section 7.1.4 / Section 5.4 of CEMP | X | X | X | X | X | ✓ Section 7.1.4 / Section 5.4 of CEMP | X | X | X | X | No |
| *Dalkey Islands SPA* | X | ✓ Section 7.1.4 / Section 5.4 of CEMP | X | X | X | X | X | ✓ Section 7..1.4 / Section 5.4 of CEMP | X | X | X | X | No |
| *Rockabill SPA* | X | ✓ Section 7.1.4 / Section 5.4 of CEMP | X | X | X | X | X | ✓ Section 7..1.4 / Section 5.4 of CEMP | X | X | X | X | No |

| European site | Potential Impacts | | | | | | | | | | | | Any adverse effect on the integrity of European sies (post mitigation) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Construction | | | | | | Operation | | | | | | |
| | Habitat Loss and Fragmentation | Hydrology | Hydro-geology | Non-native Invasive Species | Air Quality | Disturbance / Displacement | Habitat Loss and Fragmentation | Hydrology | Hydro-geology | Non-native Invasive Species | Air Quality | Disturbance / Displacement | |
| *Baldoyle Bay SPA* | X | ✓ Section 7.1.4 / Section 5.4 of CEMP | X | X | X | X | X | ✓ Section 7..1.4 / Section 5.4 of CEMP | X | X | X | X | No |
| *Malahide Estuary SPA* | X | ✓ Section 7.1.4 / Section 5.4 of CEMP | X | X | X | X | X | ✓ Section 7.1.4 / Section 5.4 of CEMP | X | X | X | X | No |
| *Rogerstown Estuary SPA* | X | ✓ Section 7.1.4 / Section 5.4 of CEMP | X | X | X | X | X | ✓ Section 7.1.4 / Section 5.4 of CEMP | X | X | X | X | No |
| *Skerries Islands SPA* | X | ✓ Section 7.9.4 / Section 5.4 of CEMP | X | X | X | X | X | ✓ Section 7.1.4 / Section 5.4 of CEMP | X | X | X | X | No |
| *Ireland's Eye SPA* | X | ✓ Section 7.10.5 / Section 5.4 of CEMP | X | X | X | X | X | ✓ Section 7.1.4 / Section 5.4 of CEMP | X | X | X | X | No |

| European site | Potential Impacts | | | | | | | | | | | | Any adverse effect on the integrity of European sies (post mitigation) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Construction | | | | | | Operation | | | | | | |
| | Habitat Loss and Fragmentation | Hydrology | Hydro-geology | Non-native Invasive Species | Air Quality | Disturbance / Displacement | Habitat Loss and Fragmentation | Hydrology | Hydro-geology | Non-native Invasive Species | Air Quality | Disturbance / Displacement | |
| *Lambay Island SPA* | X | ✓ Section 7.10.5 / Section 5.4 of CEMP | X | X | X | X | X | ✓ Section 7.1.4 / Section 5.4 of CEMP | X | X | X | X | No |
| *The Murrough SPA* | X | ✓ Section 7.11.4 / Section 5.4 of CEMP | X | X | X | X | X | ✓ Section 7.1.4 / Section 5.4 of CEMP | X | X | X | X | No |

### 8.2 Summary of Residual Impacts

420 With the effective implementation of appropriate mitigation measures identified in this NIS, the Proposed Scheme will not have any adverse effect on the conservation objectives, or the favourable conservation condition, of the Qualifying Interest habitats and species and / or SCI species of the European sites assessed in Section 7. There are, therefore, no residual direct or indirect impacts associated with the Proposed Scheme that could adversely affect the integrity of such European sites.

A matrix identifying those aspects which will be subject to mitigation measures and the residual impacts post mitigation is provided in Table 34 for the relevant European sites.

## 9 In-Combination Assessment

421 This Section of the NIS presents the assessment carried out to examine whether any other plans or projects have the potential to act in combination with the Proposed Scheme to have a significant effect on any of the European sites including those within its zone of influence (ZoI).

422 The seventeen (17) European sites within the ZoI of the Proposed Scheme are:

- North Dublin Bay SAC;
- South Dublin Bay SAC;
- Rockabill to Dalkey Island SAC;
- Lambay Island SAC;
- Wicklow Mountains SAC;
- Howth Head Coast SPA;
- Dalkey Islands SPA;
- Rockabill SPA;
- North Bull Island SPA;
- South Dublin Bay and River Tolka Estuary SPA;
- Ireland's Eye SPA;
- Malahide Estuary SPA;
- Baldoyle Bay SPA;
- Rogerstown Estuary SPA;
- Skerries Islands SPA;
- Lambay Island SPA; and,
- The Murrough SPA.

423 All other European sites fall beyond the ZoI of the Proposed Scheme. Therefore, there is no potential for any other plans or projects to act in combination with the Proposed Scheme to adversely affect the integrity of any other European sites. The protective policies and objectives from the land use plans referred to in this section are included in Section 9.2.

### 9.1 Analysis of Potential In-Combination Effects

424 The in-combination assessment involved first identifying those plans and projects which have the potential to impact on those European sites within the ZoI of the Proposed Scheme.

425 Those plans or projects with the potential to impact upon these European sites are any national, regional and local land use plans or any existing or proposed projects that could potentially affect the ecological environment within the ZoI of the Proposed Scheme. These are presented below in Table 35.

426 The potential cumulative impacts on those European sites within the ZoI of the Proposed Scheme from the Proposed Scheme in combination with the plans and projects listed in Table 35 were identified and assessed. This assessment is presented below in Table 36 and Table 37.

***Table 35: Land Use Plans and Projects Considered for the In-Combination Assessment***

| National Plans |
|---|
| National Energy & Climate Plan 2021-2030 |
| Climate Action Plan 2023 |
| National Spatial Strategy for Ireland 2002-2020 |
| Project Ireland 2040 – Building Ireland's Future[35] |
| National Transport Authority Integrated Implementation Plan 2019-2024 |
| Smarter Travel a Sustainable Transport Future 2009-2020 |
| National Biodiversity Action Plan 2017-2021 |
| River Basin Management Plan 2018-2021 |
| National Air Pollution Control Programme (NAPCP) 2021 |
| National Marine Planning Framework 2018 |
| Water Services Strategic Plan 2015 |
| **Regional Plans** |
| Regional Planning Guidelines for the Greater Dublin Area Vol I & II 2010-2022; Regional Spatial & Economic Strategy for the Eastern and Midland Region 2019-2031 |
| Greater Dublin Area Cycle Network Plan 2013 |
| Greater Dublin Area Transport Strategy 2022- 2042 |
| Eastern Catchment Flood Risk Assessment and Management (CFRAM) study 2011-2016 |
| **County / Local Plans** |
| **Fingal Development Plan 2017-2023** |
| Fingal Biodiversity Action Plan 2010-2015 |
| Fingal County Council Climate Action Plan 2019-2024<br>• Donabate Local Area Plan 2016<br>• Rivermeade Local Area Plan 2018<br>• Barnhill Local Area Plan 2019<br>• Kinsaley Local Area Plan 2019<br>• Dublin Airport Local Area Plan 2020 |
| **Dublin City Development Plan 2022-2028** |
| Dublin City Biodiversity Action Plan 2021-2025 |
| Dublin City Council Climate Action Plan 2019-2024<br>• Clongriffin-Belmayne Local Area Plan 2012-2018<br>• |

[35] Together the National Development Plan and the National Framework are referred to as Project Ireland 2040: Building Ireland's Future

- Naas Road Local Area Plan 2013-2023
-

**South Dublin County Development Plan 2022-2028**

Biodiversity Action Plan for South Dublin County (2020-2026)- Draft for public consultation

South Dublin County Council Climate Change Action Plan 2019-2024

- Tallaght Town Centre Local Area Plan 2020

**Dún Laoghaire- Rathdown County Development Plan 2022-2028**

Dún Laoghaire- Rathdown Biodiversity Action Plan 2021-2025

Dún Laoghaire-Rathdown County Council Climate Change Action Plan 2019-2024

- Stillorgan Local Area Plan 2018-2024
- Woodbrook-Shanganagh Local Area Plan 2017-2024

**Wicklow County Development Plan 2022-2028**

Wicklow Biodiversity Plan 2010-2015

Wicklow County Council Climate Change Adaptation Strategy 2019

- Bray Municipal District Local Area Plan 2018-2024
- Bray & Environs Transport Study 2019

**Projects**

- Widening of the M7 between Junction 9 (Naas North) and Junction 11 (M7 / M9) to provide an additional lane in each direction
- Enhancements of the N2 / M2 national route inclusive of a bypass of Slane, to provide for additional capacity on the non-motorway sections of this route, and to address safety issues in Slane village associated with, in particular, heavy goods vehicles
- N3 Castaheany Interchange Upgrade
- Reconfiguration of the N7 from its junction with the M50 to Naas, to rationalise junctions and accesses in order to provide a higher level of service for strategic traffic travelling on the mainline
- N3–N4: Barnhill to Leixlip Interchange
- Reconfiguration of the N4 from its junction with the M50 to Leixlip to rationalise accesses and to provide additional capacity at the Quarryvale junction
- Clonburris SDZ roads development
- DART+ Programme West
- Porterstown Distributor Link Road
- Widening of the N3 between Junction 1 (M50) and Junction 4 (Clonee), plus related junction and necessary changes to the existing national road network
- Lucan LUAS
- DART+ Programme South West
- Junction upgrades and other capacity improvements on the M1 motorway, including additional lanes south of Drogheda, where required
- Finglas LUAS (Green Line extension Broombridge to Finglas)
- DART+ Tunnel Element (Kildare Line to Northern Line)
- Potential Metro South alignment: SW option
- LUAS Cross City incorporating LUAS Green Line Capacity Enhancement - Phase 1
- Oldtown-Mooretown Western Distributor Link Road
- Potential Metro South alignment: Charlemont to Sandyford
- Poolbeg LUAS
- Leopardstown Link Road Phase 2
- Development of a road link connecting from the southern end of the Dublin Port Tunnel to the South Port area, which will serve the South Port and adjoining development areas
- Poolbeg SDZ roads development
- Glenamuck District Distributor Road
- DART+ Programme Coastal North
- Widening of the M50 to three lanes in each direction between Junction 14 (Sandyford) and Junction 17 (M11) plus related junction and other changes

- Cherrywood SDZ roads development
- DART+ Programme Coastal South
- R126 Donabate Relief Road: R132 to Portrane Demesne
- Extension of LUAS Green Line to Bray
- Capacity enhancement and reconfiguration of the M11 / N11 from Junction 4 (M50) to Junction 14 (Ashford) inclusive of ancillary and associated road schemes, to provide additional lanes and upgraded junctions, plus service roads and linkages to cater for local traffic movements.
- MetroLink
- Greater Dublin Drainage (GDD)
- Cycling: Greater Dublin Area Cycle Network Plan (excluding Radial Core Bus Corridor elements)
- Dublin Array - offshore windfarm
- Southern Port Access Route (SPAR)
- Snugborough Interchange Upgrade
- Air insulated switchgear 110kV transmission substation. Platin, Duleek
- Construction of a new distributor road and junction to the southwest of Kells town centre. Kells
- Dublin Mountain Visitors Centre and all associated works. Killakee and Jamestown.
- FCC / 12 / 0001 Broadmeadow Way. Greenway between Malahide Demesne and Newbridge Demesne to be known as 'Broadmeadow Way'. Malahide.
- Alterations to a permitted double circuit 110kV electricity transmission line development between substations. Darndale / Belcamp
- 110kV onsite electrical substation with associated electrical plant, electrical equipment, welfare facilities and waste water holding tank and security fencing. 110kV overhead line grid connection cabling, upgrade of existing tracks and provision of new site access roads with all associated site development and ancillary works. Timahoe East
- 15-year permission for development at Oil Berth 3 and Oil Berth 4, Eastern Oil Jetty and at Berths 50A, 50N, 50S, 51, 51A, 49, 52, 53 and associated terminal yards to provide for various elements including new Ro-Ro jetty and consolidation of passenger terminal buildings. Dublin Port.
- A residential development with ancillary commercial uses (retail unit, café and crèche) partially comprising a "Build to Rent" scheme on circa 9.69 hectares. The townlands of Shanganagh, Cork Little and Shankill, Co. Dublin.
- The proposed development for Brexit Infrastructure will consist of - Installation of porta-cabin structures. Resurfacing and amalgamation of existing yards. Parking for heavy good vehicles, cars and bicycles. Gates, signage and all ancillary site works. Dublin Port.
- Provision of a double circuit 220kV transmission line and a 220kV gas insulated switchgear (GIS) substation along with associated and ancillary works. Townlands of Cruiserath, Goddamendy and Bay, Co. Dublin.
- Construction of a 2 storey 110kV Gas Insulated Switchgear (GIS) substation, underground cable and all associated and ancillary site works. Former Clyde House, IDA Blanchardstown Business and Technology Park, Snugborough Road, Blanchardstown, Dublin 15
- Flood alleviation works along and adjacent to the River Poddle extending from the upper reaches of the river. Tymon North, Tallaght to Merchant's Quay, Dublin.
- Camac Flood Alleviation Scheme (excluding the extension of culvert and headwall at New Nangor Road and Oak Road intersection)
- Whitechurch Flood Alleviation Scheme involving various works between St Enda's Park and the confluence with the Owenadoher River
- Baldoyle Airport Aviation Fuel Line
- Park development project at the Racecourse Park
- 2 no. 110kV transmission lines and a 110kV Gas Insulated Switchgear (GIS) substation
- Increase the capacity of the Dublin Waste to Energy Facility from 600,000 tonnes per annum to 690,000 tonnes per annum
- Clutterland 110kV GIS Substation building and 2 underground single circuit transmission lines
- 2 no. 110kV transmission lines and a 110kV Gas Insulated Switchgear (GIS) substation
- Provision of two 110kV transmission lines connecting Coolderrig 110kV GIS substation to Grand Castle – Kilmahud circuits.
- Office Block redevelopment - DCC planning reference 4936/22

- Office demolition and development of mixed development including 8 storey building at Charlemont Place South - DCC planning reference 4816/22
- Mixed use development including Hotel centred on Middle Abbey Street - DCC planning reference 4880/22
- Reconfiguration and extension of existing office blocks - DCC planning reference 4937/22
- Mixed use development at St.Stephens Green - DCC planning reference 5099/22
- Restoration/refurbishment of existing buildings at Ormond Place - DCC planning reference 5431/22
- Proposed Cycle Scheme – safe routes for school - DDCC planning reference SD228/000
- Clongriffin to City Centre Core Bus Corridor Scheme
- Swords to City Centre Core Bus Corridor Scheme
- Ballymun / Finglas to City Centre Core Bus Corridor Scheme
- Blanchardstown to City Centre Core Bus Corridor Scheme
- Liffey Valley to City Centre Core Bus Corridor Scheme
- Lucan to City Centre Core Bus Corridor Scheme
- Tallaght / Clondalkin to City Centre Core Bus Corridor Scheme
- Kimmage to City Centre Core Bus Corridor Scheme
- Bray to City Centre Core Bus Corridor Scheme
- Blackrock / Belfield to City Centre Core Bus Corridor Scheme
- Ringsend to City Centre Core Bus Corridor Scheme
- A range of Strategic Housing Developments
- A range of Large Scale Residential Developments
- GDA Transport Strategy Park and Ride (All Included despite distance as hydrological connectivity cannot be ruled out to downstream European sites in Dublin Bay)
- A range of Irish Water Projects

***Table 36: In Combination Assessment of Plans and Programmes***

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| **National Energy & Climate Plan 2021-2030**<br><br>This National Energy and Climate Plan builds on previous national strategies and sets out in detail objectives regarding the five energy dimensions together with planned policies and measures to ensure that these objectives are achieved. It aims as a fundamental national objective to pursue a trajectory of emissions reduction which is in line with reaching net zero in Ireland by 2050.<br><br>In relation to transport the plan aims to:<br>• make growth less transport intensive through better planning, remote and home-working and modal shift to public transport<br>• Increase the renewable biofuel content of motor fuels<br>• Set targets for the conversion of public transport fleets to zero carbon alternatives. | No potential impact pathways to European sites.<br><br>There are no specific spatial references in this policy document and therefore, no specific link (in terms of potential impact pathways) between it and European sites within the Zone of Influence (ZoI) of the proposed scheme. | No in combination impact.<br><br>Key to considering the on-going evolution of national climate policy included are the obligations of the State under EU law (e.g., the EU Habitats Directive), and the promotion of sustainable development. Considering that, this policy position poses no identifiable risk of resulting in adverse effects on the integrity of any European sites. |
| **Climate Action Plan 2023 – Changing Ireland for Better**<br><br>**The** Plan, **which was not subject to AA, provides the Governments' second update to the Climate Action Plan 2019, outlines the actions required to 2035 and beyond,** to **guide** the Governments' **joint efforts over the coming years** at reducing greenhouse gas emissions**. The plan implements the carbon budgets and sectoral emissions ceilings and sets a roadmap for taking decisive action to halve our emissions by 2030 and reach net zero no later than 2050**. **It will be updated annually and will be improved and strengthened when required, allowing us to learn from our experiences in what is a very significant and complex undertaking.** | There is the potential that actions and or developments implemented under the Climate Action Plan 2023 could affect European sites within the ZoI of the Proposed Scheme. The potential impact pathways cannot yet be defined and while the Plan includes a considerable number of actions, the detailed implementation steps are not yet available as a supplementary *Annex of Actions* is to be published in 2023**.** | No in combination impact.<br><br>Although lacking full implementation detail, the bulk of the actions require the development of guidance, standards and plans, to positively reduce the greenhouse gas emissions. Any sectoral plans developed on foot of this will themselves be subject to Appropriate Assessment and Strategic Environmental Assessment<br><br>Any projects arising out of the Plan or the Sectoral plans required to achieve the objectives of the Plan must comply with the requirements and obligations of EU and Irish planning and environmental law, including those of the relevant land use plans (Development Plans, Local Area Plans etc.). In the context of European sites within the ZoI of the Proposed Scheme, the overarching land use plans are Fingal |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | | DP (2017-2023), Dublin City DP (2022-2028), South Dublin CDP (2022-2028), Dún Laoghaire-Rathdown CDP (2022-2028), and Wicklow CDP (2022 - 2028).<br><br>All of these land use plans contain objectives and policies to ensure the protection of European sites from any projects proposed within the plan area. These are presented in Section 9.2.<br><br>This assessment has identified those land use plans that have the potential to act in combination with the Proposed Scheme to affect European sites, given their spatial jurisdiction (see discussions on the relevant land use plans in the sections below).<br><br>Considering the environmental protection policies included within those land use plans, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the Climate Action Plan 2023 Plan poses no identifiable risk of resulting in adverse effects on the integrity of any European sites in combination with the Proposed Scheme. |
| **National Development Plan Ireland 2021-2030**<br><br>As part of Project Ireland 2040 the National Development Plan sets out the Government's over-arching investment strategy and budget for the period 2021-2030. The plan aims to balance demand for public investment across all sectors and regions of Ireland with a major focus on the delivery of infrastructure projects. | There is the potential that developments implemented under the National Development Plan could affect European sites within the ZoI of the Proposed Scheme. The potential impact pathways cannot be defined based on the level of detail included in the plan. However, future developments implemented through the National Development Plan have the potential to lie either within those European sites, or be situated in a location where they may be within the ZoI of those European sites. | No in combination impact.<br><br>Any projects required to achieve the objectives of the National Development Plan must comply with the requirements and obligations of EU and Irish planning and environmental law, including those of the relevant land use plans (Development Plans, Local Area Plans etc.). In the context of European sites within the ZoI of the Proposed Scheme, the overarching land use plans are Fingal DP (2017-2023), Dublin City DP (2022-2028), South Dublin CDP (2022-2028), Dún Laoghaire-Rathdown CDP (2022-2028), and Wicklow CDP (2022 - 2028).<br><br>All of these land use plans contain objectives and policies to ensure the protection of European sites from any projects proposed within the plan area. These are presented in Section 9.2. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | | This assessment has identified those land use plans that have the potential to act in combination with the Proposed Scheme to affect European sites, given their spatial jurisdiction (see discussions on the relevant land use plans in the sections below).<br><br>Considering the environmental protection policies included within those land use plans, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the National Development Plan poses no identifiable risk of resulting in adverse effects on the integrity of any European sites in combination with the Proposed Scheme. |
| **Project Ireland 2040 – The National Planning Framework**<br><br>The National Planning Framework is a high-level strategic plan to guide future growth and development in Ireland. The NPF makes reference to delivering projects in Dublin (Here Dublin refers to the Greater Dublin Area (GDA). This area includes Dublin City and the following surrounding lands and counties: Dun Laoghaire / Rathdown, Fingal, Kildare, Meath, South Dublin and Wicklow) such as the DART expansion programme, Bus Connects Scheme, and investment at Dublin Port, amongst others. Key objectives of the plan include:<br><br>• Managing sustainable growth of cities, towns and villages<br>• Providing accessibility between key urban centres<br>• Enhance public transport in a sustainable manner | There is the potential that developments implemented under Project Ireland 2040 could affect European sites within the ZoI of the Proposed Scheme. The potential impact pathways cannot be defined based on the level of detail included in the plan. However, future developments implemented through Project Ireland 2040 have the potential to lie either within those European sites, or be situated in a location where they may be within the ZoI of those European sites. | No in combination impact.<br><br>Any projects required to achieve the objectives of Project Ireland 2040 Plan must comply with the requirements and obligations of EU and Irish planning and environmental law, including those of the relevant land use plans (Development Plans, Local Area Plans etc.). In the context of European sites within the ZoI of the Proposed Scheme, the overarching land use plans are Fingal DP (2017--2023), Dublin City DP (2022-2028), South Dublin CDP (2022-2028), Dún Laoghaire-Rathdown CDP (2022-2028), and Wicklow CDP (2022-2028).<br><br>All of these land use plans contain objectives and policies to ensure the protection of European sites from any projects proposed within the plan area. These are presented in Section 9.2.<br><br>This assessment has identified those land use plans that have the potential to act in combination with the Proposed Scheme to affect European sites, given their spatial jurisdiction (see discussions on the relevant land use plans in the sections below).<br><br>Considering the environmental protection policies included within those land use plans, and that alone the Proposed |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | | Scheme will not adversely affect the integrity of any European sites, Project Ireland 2040 poses no identifiable risk of resulting in adverse effects on the integrity of any European sites in combination with the Proposed Scheme. |
| **National Transport Authority Integrated Implementation Plan 2019-2024**<br><br>An Infrastructure investment programme forms the core of this plan. There are four key investment areas: bus, light rail, heavy rail, and integration measures and sustainable transport. The NTA Integrated Implementation Plan refers to the delivery of projects in Dublin, such as the DART expansion program and GDA Cycle Network Plan, amongst others. | There is the potential that developments implemented under this plan could affect European sites within the ZoI of the Proposed Scheme. The potential impact pathways cannot be defined based on the level of detail included in the plan. However, future developments implemented through this plan have the potential to lie either within those European sites, or be situated in a location where they may be within the ZoI of those European sites. | No in combination impact.<br><br>Any projects required to achieve the objectives of this plan must comply with the requirements and obligations of EU and Irish planning and environmental law, including those of the relevant land use plans (Development Plans, Local Area Plans etc.). In the context of European sites within the ZoI of the Proposed Scheme, the overarching land use plans are Fingal DP (2017-2023), Dublin City DP (2022-2028), South Dublin CDP (2022-2028), Dún Laoghaire-Rathdown CDP (2022-2028), and Wicklow CDP (2022-2028).<br><br>All of these land use plans contain objectives and policies to ensure the protection of European sites from any projects proposed within the plan area. These are presented in Section 9.2.<br><br>This assessment has identified those land use plans that have the potential to act in combination with the Proposed Scheme to affect European sites, given their spatial jurisdiction (see discussions on the relevant land use plans in the sections below).<br><br>Considering the environmental protection policies included within those land use plans, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this plan poses no identifiable risk of resulting in adverse effects on the integrity of any European sites in combination with the Proposed Scheme. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| **Smarter Travel a Sustainable Transport Future 2009-2020**<br><br>Smarter Travel is a government policy document outlining a strategy related to sustainable transport. It sets out actions to reduce overall travel demand, to maximise the efficiency of the transport network, to reduce reliance on fossil fuels, to reduce transport emissions, and to improve accessibility to transport. | There is the potential that developments implemented under Smarter Travel could affect European sites within the ZoI of the Proposed Scheme. Smarter Travel does not propose or support any specific development proposals in identified locations and the potential impact pathways cannot be defined. However, future developments implemented through Smarter Travel have the potential to lie either within those European sites, or be situated in a location where they may be within the ZoI of those European sites. | No in combination impact.<br><br>Any projects required to achieve the objectives of smarter travel must comply with the requirements and obligations of EU and Irish planning and environmental law, including those of the relevant land use plans (Development Plans, Local Area Plans etc.). In the context of European sites within the ZoI of the Proposed Scheme, the overarching land use plans are Fingal DP (2017-2023), Dublin City DP (2022-2028), South Dublin CDP (2022-2028), Dún Laoghaire-Rathdown CDP (2022-2028), and Wicklow CDP (2022-2028).<br><br>All of these land use plans contain objectives and policies to ensure the protection of European sites from any projects proposed within the plan area. These are presented in Section 9.2.<br><br>This assessment has identified those land use plans that have the potential to act in combination with the Proposed Scheme to affect European sites, given their spatial jurisdiction (see discussions on the relevant land use plans in the sections below).<br><br>Considering the environmental protection policies included within those land use plans, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, Smarter Travel poses no identifiable risk of resulting in adverse effects on the integrity of any European sites in combination with the Proposed Scheme. |
| **National Biodiversity Action Plan 2017-2021**<br><br>The National Biodiversity Action Plan sets out 119 targeted actions, underpinned by seven strategic objectives aimed at ensuring that Irelands' biodiversity and ecosystems are conserved and restored, delivering benefits essential for all sectors of society and that Ireland contributes to efforts to halt the loss of biodiversity and the | The purpose of this action plan is to halt the loss of biodiversity and the degradation of ecosystems therefore, it will contribute towards maintaining or restoring the conservation condition of the European sites within their ZoI. Consequently, there are no potential impact pathways by which it could adversely affect the integrity of any European sites | No in combination impact<br><br>As the National Biodiversity Action Plan aims to halt biodiversity loss, no likely significant in-combination effects are predicted |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| degradation of ecosystems in the EU and globally. The strategic objectives lay out a clear framework for Ireland's national approach to biodiversity. | | |
| **River Basin Management Plan 2018-2021**<br><br>The River Basin Management Plan outlines the measures the State and other sectors will take to improve water quality in Ireland's groundwater, rivers, lakes, estuarine and coastal waters. | The purpose of this plan is to improve water quality in Ireland's groundwater, rivers, lakes, estuarine and coastal waters therefore, it will contribute towards maintaining or restoring the conservation condition of the European sites within their ZoI. Consequently, there are no potential impact pathways by which it could adversely affect the integrity of any European sites. | No in combination impact<br><br>No potential for in combination impacts with the proposed scheme as such a plan is intended to improve the quality of the ecological environment within its ZoI. |
| **National Air Pollution Control Programme (NAPCP) 2021**<br><br>The National Air Pollution Control Programme (Article 6 of Directive (EU) 2016 / 2284 – 'the NEC Directive') is the main governance instrument by which EU Member States must ensure that the emission reduction commitments for 2020-2029 and 2030 onwards are met. | The purpose of this programme is to reduce emissions and improve air quality in Ireland. Therefore, it will contribute towards maintaining or restoring the conservation condition of the European sites within its ZoI. Consequently, there are no potential impact pathways by which it could adversely affect the integrity of any European sites. | No in combination impact<br><br>No potential for in combination impacts with the proposed scheme as such a plan is intended to improve the quality of the ecological environment within its ZoI. |
| **National Marine Planning Framework 2018**<br><br>This framework is the first formal step towards the preparation of a marine spatial plan for Ireland which will contribute to the effective management of marine activities e.g. fishing, shipping, leisure, aquaculture and renewable energy, and a more sustainable use of our marine resources. | There is the potential that developments implemented under the National Marine Planning Framework could affect European sites within the ZoI of the Proposed Scheme. The National Marine Planning Framework does not propose or support any specific development proposals in identified locations and the potential impact pathways cannot be defined. However, future developments implemented through the National Marine Planning Framework have the potential to lie either within those European sites, or be situated in a location where they may be within the ZoI of those European sites. | No in combination impact.<br><br>Any projects required to achieve the objectives of the National Marine Planning Framework must comply with the requirements and obligations of EU and Irish planning and environmental law, including those of any relevant land use plans (Development Plans, Local Area Plans etc.). In the context of European sites within the ZoI of the Proposed Scheme, the overarching land use plans are Fingal DP (2017-2023), Dublin City DP (2022-2028), South Dublin CDP (2022-2028), Dún Laoghaire-Rathdown CDP (2022-2028), and Wicklow CDP (2022-2028).<br><br>All of these land use plans contain objectives and policies to ensure the protection of European sites from any projects |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | | proposed within the plan area. These are presented in Section 9.2.<br><br>This assessment has identified those land use plans that have the potential to act in combination with the Proposed Scheme to affect European sites, given their spatial jurisdiction (see discussions on the relevant land use plans in the sections below).<br><br>Considering the environmental protection policies included within the National Marine Planning Framework 2018, and in the county and local level land use plans, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the National Marine Planning Framework 2018 poses no identifiable risk of resulting in adverse effects on the integrity of any European sites in combination with the Proposed Scheme. |
| **Water Services Strategic Plan 2015**<br><br>Water Services Strategic Plan (WSSP) sets out strategic objectives for the delivery of water services over the next 25 years up to 2040. Its six strategic objectives include: meeting customer expectations; ensuring a safe and reliable water supply; providing effective management of wastewater; protecting and enhancing the environment; supporting social and economic growth; and investing in our future. | Objectives of the WSSP 2015 are implemented through relevant local authorities and statutory bodies i.e. Fingal DP (2017-2023), Dublin City DP (2022-2028), South Dublin CDP (2022-2028), Dún Laoghaire-Rathdown CDP (2022-2028), and Wicklow CDP (2022-2028), NTA and TII.<br><br>There is the potential that developments implemented under the Water Services Strategic Plan could affect European sites within the ZoI of the Proposed Scheme. The Water Services Strategic Plan does not propose or support any specific development proposals in identified locations and the potential impact pathways cannot be defined. However, future developments implemented through the Water Services Strategic Plan have the potential to lie either within those European sites, or be situated in a location where they may be within the ZoI of those European sites. | No in combination impact.<br><br>Any projects required to achieve the objectives of the Water Services Strategic Plan must comply with the requirements and obligations of EU and Irish planning and environmental law, including those of the relevant land use plans (Development Plans, Local Area Plans etc.). In the context of European sites within the ZoI of the Proposed Scheme, the overarching land use plans are Fingal DP (2017-2023), Dublin City DP (2022-2028), South Dublin CDP (2022-2028), Dún Laoghaire-Rathdown CDP (2022-2028), and Wicklow CDP (2022-2028).<br><br>All of these land use plans contain objectives and policies to ensure the protection of European sites from any projects proposed within the plan area. These are presented in Section 9.2.<br><br>This assessment has identified those land use plans that have the potential to act in combination with the Proposed Scheme to affect European sites, given their spatial |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | | jurisdiction (see discussions on the relevant land use plans in the sections below).<br><br>Considering the environmental protection policies included within those land use plans, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, Water Services Strategic Plan poses no identifiable risk of resulting in adverse effects on the integrity of any European sites in combination with the Proposed Scheme. |
| **Regional Spatial & Economic Strategy for the Eastern and Midland Region 2019-2031**<br><br>A RSES is a strategic plan which identifies regional assets, opportunities and pressures and provides appropriate policy responses in the form of Regional Policy Objectives. One of its main aims is to provide a framework to better manage spatial planning and economic development throughout the Region. | There is the potential that developments implemented under the Regional Spatial & Economic Strategy for the Eastern and Midland Region could affect European sites within the ZoI of the Proposed Scheme. The Regional Spatial & Economic Strategy for the Eastern and Midland Region does not propose or support any specific development proposals in identified locations and the potential impact pathways cannot be defined. However, future developments implemented through the Regional Spatial & Economic Strategy for the Eastern and Midland Region have the potential to lie either within those European sites, or be situated in a location where they may be within the ZoI of those European sites. | No in combination impact.<br><br>Any projects required to achieve the objectives of the Regional Spatial & Economic Strategy for the Eastern and Midland Region will be implemented locally by the relevant local authority and must comply with the requirements and obligations of EU and Irish planning and environmental law, including those of the relevant land use plans (Development Plans, Local Area Plans etc.). In the context of European sites within the ZoI of the Proposed Scheme, the overarching land use plans are Fingal DP (2017-2023), Dublin City DP (2022-2028), South Dublin CDP (2022-2028), Dún Laoghaire-Rathdown CDP (2022-2028), and Wicklow CDP (2022-2028).<br><br>All of these land use plans contain objectives and policies to ensure the protection of European sites from any projects proposed within the plan area. These are presented in Section 9.2.<br><br>This assessment has identified those land use plans that have the potential to act in combination with the Proposed Scheme to affect European sites, given their spatial jurisdiction (see discussions on the relevant land use plans in the sections below). |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | | Considering the environmental protection policies included within those land use plans, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the Regional Spatial & Economic Strategy for the Eastern and Midland Region poses no identifiable risk of resulting in adverse effects on the integrity of any European sites in combination with the Proposed Scheme. |
| **Greater Dublin Area Cycle Network Plan 2013**<br><br>The Greater Dublin Area Cycle Network Plan sets out the goals to promote and provide cycling infrastructure across the Greater Dublin Area, and the actions to achieve these goals. | The Proposed Scheme lies partly within the functional area of the Dublin City Development Plan 2022-2028, South Dublin County Development Plan 2022-2028 and Dún-Laoghaire – Rathdown County Development Plan 2022-2028, and many of the objectives and policies of the Greater Dublin Area Cycle Network Plan 2013, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.<br><br>As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites including:<br><br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br><br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South | No in combination impact.<br><br>The Greater Dublin Area Cycle Network Plan 2013 has undergone AA and therefore, subject to the mitigation proposed in the NIS being incorporated, there would be no adverse effects on any European sites as a result of implementation of the plan.<br><br>The Greater Dublin Area Cycle Network Plan 2013 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area. These are presented in Section 9.2.<br><br>Considering the protective environmental policies contained within the Greater Dublin Area Cycle Network Plan 2013, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this land use plan will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites.<br><br>Any projects required to achieve the objectives of the Greater Dublin Area Cycle Network Plan 2013 will be implemented locally by the relevant local authority and must comply with the requirements and obligations of EU and Irish planning and environmental law, including those of the relevant land use plans (Development Plans, Local Area Plans etc.). In the context of European sites within the ZoI of the Proposed Scheme, the overarching land use plans are Fingal |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | DP (2017-2023), Dublin City DP (2022-2028), South Dublin CDP (2022-2028), Dún Laoghaire-Rathdown CDP (2022-2028), and Wicklow CDP (2022-2028).<br>All of these land use plans contain objectives and policies to ensure the protection of European sites from any projects proposed within the plan area. These are presented in Section 9.2.<br>This assessment has identified those land use plans that have the potential to act in combination with the Proposed Scheme to affect European sites, given their spatial jurisdiction (see discussions on the relevant land use plans in the sections below).<br>Considering the environmental protection policies included within those land use plans, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the Greater Dublin Area Cycle Network Plan 2013 poses no identifiable risk of resulting in adverse effects on the integrity of any European sites in combination with the Proposed Scheme. |
| **Greater Dublin Area Transport Strategy 2022- 2042**<br><br>The Strategy, which replaces the 2016-2035 strategy, sets out the framework for investment in transport infrastructure and services over the next two decades to 2042. It has been developed to be consistent with National Planning framework and spatial planning policies and objectives. | The Proposed Scheme lies partly within the functional area of the Dublin City Development Plan 2022-2028, South Dublin County Development Plan 2022-2028 and Dún-Laoghaire – Rathdown County Development Plan 2022-2028, and many of the objectives and policies of the Greater Dublin Area Transport Strategy 2022-2042, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.<br><br>As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving | No in combination impact.<br>The Greater Dublin Area Transport Strategy 2020-2042 has undergone AA and therefore, subject to the mitigation proposed in the NIS being incorporated, there would be no adverse effects on any European sites as a result of implementation of the plan**.**<br>The Greater Dublin Area Transport Strategy 2020-2042 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area. These are presented in Section 9.2. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites including:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | Considering the protective environmental policies contained within the Greater Dublin Area Transport Strategy 2020-2042, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this land use plan will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites.<br>Any projects required to achieve the objectives of the Greater Dublin Area Transport Strategy 20020-2042 will be implemented locally by the relevant local authority and must comply with the requirements and obligations of EU and Irish planning and environmental law, including those of the relevant land use plans (Development Plans, Local Area Plans etc.). In the context of European sites within the ZoI of the Proposed Scheme, the overarching land use plans are Fingal DP (2017-2023), Dublin City DP (2022-2028), South Dublin CDP (2022-2028), Dún Laoghaire-Rathdown CDP (2022-2028), and Wicklow CDP (2022-2028).<br>All of these land use plans contain objectives and policies to ensure the protection of European sites from any projects proposed within the plan area. These are presented in Section 9.2.<br>This assessment has identified those land use plans that have the potential to act in combination with the Proposed Scheme to affect European sites, given their spatial jurisdiction (see discussions on the relevant land use plans in the sections below).<br>Considering the environmental protection policies included within those land use plans, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the Greater Dublin Area Transport Strategy 2020-2042 poses no identifiable risk of resulting in adverse effects on the integrity of any European sites in combination with the Proposed Scheme. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| **Eastern Catchment Flood Risk Assessment and Management (CFRAM) study 2011-2016**<br><br>This study includes the following main elements within the Eastern catchment:<br><br>1. Flood Risk Assessments<br>2. Flood Risk Mapping<br>3. Flood Risk Management Plans | There is the potential that developments implemented under the Eastern Catchment Flood Risk Assessment and Management (CFRAM) study 2011-2016 could affect European sites within the ZoI of the Proposed Scheme. Given the nature of the study, future developments implemented through CFRAM have the potential to lie either within those European sites or be situated in a location where they may be within the ZoI of those European sites. | No in combination impact.<br><br>CFRAM Studies and their product Flood Risk Management Plans have undergone AA.<br><br>The AA of the CFRAMs considered the potential for impacts from hard engineering solutions and how they might affect hydrological connectivity and hydromorphological supporting conditions for protected habitats and species.<br><br>Any projects required to achieve the objectives of CFRAM must comply with the requirements and obligations of EU and Irish planning and environmental law, including those of any relevant land use plans (Development Plans, Local Area Plans etc.).<br><br>All of these land use plans contain objectives and policies to ensure the protection of European sites from any projects proposed within the plan area. These are presented in Section 9.2. Considering this, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the CFRAM will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites in combination with the Proposed Scheme. |
| **Fingal Development Plan 2017-2023**<br><br>The Fingal CDP makes reference to residential development, zoning and infrastructure targets / obligations. | The Proposed Scheme lies partly within the functional area of the Dublin City Development Plan 2022-2028, South Dublin County Development Plan 2022-2028 and Dún-Laoghaire – Rathdown County Development Plan 2022-2028, and many of the objectives and policies of the Fingal Development Plan 2017 - 2023, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.<br><br>As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving | No in combination impact.<br><br>The Fingal Development Plan 2017-2023 was subject to AA screening, and AA, prior to its adoption and therefore, subject to any mitigation identified as being required, there will be no adverse effects on any European sites as a result of implementation of the plan.<br><br>The Fingal Development Plan 2017-2023 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area. These are presented in Section 9.2. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites including:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | Considering this, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this land use plan will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| **Fingal Biodiversity Action Plan 2010-2015**<br><br>The purpose of this action plan is to halt the loss of biodiversity and the degradation of ecosystems. | No, there are no potential impact pathways to European sites.<br><br>This plan will contribute towards maintaining or restoring the conservation condition of the European sites within their ZoI. Consequently, there are no potential impact pathways by which it could adversely affect the integrity of any European sites. | No in combination impact.<br><br>No potential for in combination impacts with the proposed scheme as such a plan is intended to improve the quality of the ecological environment within its ZoI. |
| **Fingal County Council Climate Action Plan 2019-2024**<br><br>The purpose of this action plan is to improve the council's energy efficiency, reduce their greenhouse emissions and create a climate resilient Dublin. | No, there are no potential impact pathways to European sites.<br><br>This plan will contribute towards improving the climate change resilience of the European sites within their ZoI. Consequently, there are no potential impact pathways by which it could adversely affect the integrity of any European sites. | No in combination impact.<br><br>No potential for in combination impacts with the proposed scheme as such a plan is intended to improve the quality of the environment within its ZoI. |
| **Donabate Local Area Plan 2016**<br><br>The LAP makes reference to phased housing development targets / obligations. | The Proposed Scheme lies partly within the functional area of the Dublin City Development Plan 2022-2028, South Dublin County Development Plan 2022-2028 and Dún-Laoghaire – Rathdown County Development Plan 2022-2028, and many of the objectives and policies of the Donabate Local Area Plan 2016, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.<br><br>As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites including:<br><br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye | No in combination impact.<br><br>The Donabate Local Area Plan 2016 was subject to AA screening, and AA, prior to its adoption and therefore, subject to any mitigation identified as being required, there will be no adverse effects on any European sites as a result of implementation of the plan**.** The Donabate Local Area Plan 2016 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area.<br><br>Considering the protective environmental policies contained within the Donabate Local Area Plan 2016, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this land use plan will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA | |
| **Rivermeade Local Area Plan 2018**<br><br>The LAP makes reference to 11 development area targets / obligations and the creation of a link road to connect Rivermeade to Swords. | The Proposed Scheme lies partly within the functional area of the Dublin City Development Plan 2022-2028, South Dublin County Development Plan 2022-2028 and Dún-Laoghaire – Rathdown County Development Plan 2022-2028, and some of the objectives and policies of the Rivermeade Local Area Plan 2018, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites. | No in combination impact.<br><br>The Rivermeade Local Area Plan 2018 was subject to AA screening prior to its adoption. The AA screening confirmed that the plan did not have the potential to result in likely significant effects on European sites, therefore an NIS was not required. Therefore, there will be no adverse effects on any European sites as a result of implementation of the plan**.** |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to | The Rivermeade Local Area Plan 2018 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area.<br>Considering the protective environmental policies contained within the Rivermeade Local Area Plan 2018, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this land use plan will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | |
| **Barnhill Local Area Plan 2019**<br><br>The LAP makes reference to residential development targets / obligations. | The Proposed Scheme lies partly within the functional area of the Dublin City Development Plan 2022-2028, South Dublin County Development Plan 2022-2028 and Dún-Laoghaire – Rathdown County Development Plan 2022-2028, however some of the objectives and policies of the Barnhill Local Area Plan 2019, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.<br><br>As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br><br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA,, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br><br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, | No in combination impact.<br><br>The Barnhill Local Area Plan 2019 was subject to AA screening prior to its adoption. The AA screening confirmed that the plan did not have the potential to result in likely significant effects on European sites, therefore an NIS was not required. Therefore, there will be no adverse effects on any European sites as a result of implementation of the plan.<br><br>The Barnhill Local Area Plan 2019 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area.<br><br>Considering the protective environmental policies contained within the Barnhill Local Area Plan 2019, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this land use plan will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | |
| **Kinsaley Local Area Plan 2019**<br><br>The LAP makes reference to commercial and residential development targets / obligations. | The Proposed Scheme lies partly within the functional area of the Dublin City Development Plan 2022-2028, South Dublin County Development Plan 2022-2028 and Dún-Laoghaire – Rathdown County Development Plan 2022-2028, and some of the objectives and policies of the Kinsaley Local Area Plan 2019, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.<br><br>As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye | No in combination impact.<br><br>The Kinsaley Local Area Plan 2019 was subject to AA screening prior to its adoption. The AA screening confirmed that the plan did not have the potential to result in likely significant effects on European sites, therefore an NIS was not required. Therefore, there will be no adverse effects on any European sites as a result of implementation of the plan.<br><br>The Kinsaley Local Area Plan 2019 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area.<br><br>Considering the protective environmental policies contained within the Kinsaley Local Area Plan 2019, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this land use plan will not act in |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | combination with the Proposed Scheme to adversely affect the integrity of any European sites. |
| **Dublin Airport Local Area Plan 2020**<br><br>The LAP makes reference to airside and landside infrastructure targets / obligations. | The Proposed Scheme lies partly within the functional area of the Dublin City Development Plan 2022-2028, South Dublin County Development Plan 2022-2028 and Dún-Laoghaire – Rathdown County Development Plan 2022-2028, and some of the objectives and policies of the Dublin Airport Local Area Plan 2020, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites. | No in combination impact.<br><br>The Dublin Airport Local Area Plan 2020 was subject to AA screening prior to its adoption. The AA screening confirmed that the plan did not have the potential to result in likely significant effects on European sites, therefore an NIS was not required. Therefore, there will be no adverse effects on any European sites as a result of implementation of the plan**.** |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to | The Dublin Airport Local Area Plan 2020 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area.<br>Considering the protective environmental policies contained within the Dublin Airport Local Area Plan 2020, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this land use plan will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | |
| **Dublin City Development Plan 2022-2028**<br><br>The Dublin City DP makes reference to improvement of the public transport network and facilities for pedestrians and cyclists and targets / obligations to create strategic development and regeneration areas. | The Proposed Scheme lies partially within the functional area of the Dublin City Development Plan 2022-2028 and many of the objectives and policies therein, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.<br><br>As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites including:<br><br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br><br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br><br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise | No in combination impact.<br><br>The Dublin City Development Plan 2022-2028 was subject to AA screening, and AA, prior to its adoption and therefore, subject to any mitigation identified as being required, there will be no adverse effects on any European sites as a result of implementation of the plan**.**<br><br>The Dublin City Development Plan 2022-2028 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area.<br><br>Considering the protective environmental policies contained within the Dublin City Development Plan 2022-2028, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this land use plan will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | |
| **Dublin City Biodiversity Action Plan 2021-2025**<br><br>The purpose of this action plan is to halt the loss of biodiversity and the degradation of ecosystems. | No, there are no potential impact pathways to European sites.<br><br>This plan will contribute towards maintaining or restoring the conservation condition of the European sites within their ZoI. Consequently, there are no potential impact pathways by which it could adversely affect the integrity of any European sites. | No in combination impact.<br><br>No potential for in combination impacts with the proposed scheme as such a plan is intended to improve the quality of the ecological environment within its ZoI. |
| **Dublin City Council Climate Action Plan 2019-2024**<br><br>The purpose of this action plan is to improve the council's energy efficiency, reduce their greenhouse emissions and create a climate resilient Dublin. | This plan will contribute towards improving the climate change resilience of the European sites within their ZoI. While by and large the majority of the measures proposed in the plan will have a positive or supportive function for European sites, some of the proposals, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.<br><br>As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites including: | No in combination impact.<br><br>The plan is intended to improve the quality of the environment within its ZoI.<br><br>Any projects required to achieve the objectives of plan will be implemented by the relevant local or other consenting authorities and must comply with the statutory planning or other legislative requirements, including those of any relevant land use plans (Development Plans, Local Area Plans etc.). In the context of European sites within the ZoI of the Proposed Scheme, the overarching land use plans are Fingal DP (2017-2023), Dublin City DP (2022-2028), South Dublin CDP (2022-2028), Dún Laoghaire-Rathdown CDP (2022-2028), and Wicklow CDP (2022-2028). |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | • Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | All of these land use plans contain objectives and policies to ensure the protection of European sites from any projects proposed within the plan area. These are presented in Section 9.2.<br>This assessment has identified those land use plans that have the potential to act in combination with the Proposed Scheme to affect European sites, given their spatial jurisdiction (see discussions on the relevant land use plans in the sections below).<br>Considering the environmental protection policies included within those land use plans, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, CFRAM poses no identifiable risk of resulting in adverse effects on the integrity of any European sites in combination with the Proposed Scheme. |
| **Clongriffin-Belmayne Local Area Plan 2012-2018** | The Proposed Scheme lies partly within the functional area of the Dublin City Development Plan 2022-2028, South Dublin County Development Plan 2022-2028 and Dún-Laoghaire – Rathdown | No in combination impact. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| The LAP makes reference to commercial and residential development targets / obligations, and targets associated with interconnecting walking, cycling and public transport routes. | County Development Plan 2022-2028, and some of the objectives and policies of the Clongriffin-Belmayne Local Area Plan 2012-2018, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.<br><br>As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites including:<br><br>• Habitat fragmentation (for example European sites at risk of ex-situ habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br><br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br><br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example ex-situ inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle | The Clongriffin-Belmayne Local Area Plan 2012-2018 was subject to AA screening, and AA, prior to its adoption and therefore, there will be no adverse effects on any European sites as a result of implementation of the plan.<br><br>The Clongriffin-Belmayne Local Area Plan 2012-2018 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area.<br><br>Considering the protective environmental policies contained within the Clongriffin-Belmayne Local Area Plan 2012-2018, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this land use plan will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | |
| **Naas Road Local Area Plan 2013-2023**<br><br>This LAP makes reference to the creation of four strategic development regeneration areas and targets / obligations associated making improvements to pedestrian, cycling and public transport infrastructure. | The Proposed Scheme lies partly within the functional area of the Dublin City Development Plan 2022-2028, South Dublin County Development Plan 2022-2028 and Dún-Laoghaire – Rathdown County Development Plan 2022-2028, and some of the objectives and policies of the Naas Road Local Area Plan 2013-2023, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.<br><br>As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites including:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head | No in combination impact.<br><br>The Naas Road Local Area Plan 2013-2023 was subject to AA screening prior to its adoption thereby finding the plan did not have the potential to result in likely significant effects on European sites, and that an NIS was not required. Therefore, there will be no adverse effects on any European sites as a result of implementation of the plan**.**<br><br>The Naas Road Local Area Plan 2013-2023 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area.<br><br>Considering the protective environmental policies contained within the Naas Road Local Area Plan 2013-2023, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this land use plan will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | |
| **South Dublin County Development Plan 2022-2028**<br><br>The South Dublin DP makes reference to commercial and residential development (including Adamstown and Clonburris SDZs), and infrastructure targets / obligations aimed at increasing connectivity between pedestrian and cycle routes and public transport. | The Proposed Scheme lies partly within the functional area of the Dublin City Development Plan 2022-2028, South Dublin County Development Plan 2022-2028 and Dún-Laoghaire – Rathdown County Development Plan 2022-2028, however some of the objectives and policies of the South Dublin County Council Development Plan 2022-2028, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.<br><br>As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites including: | No in combination impact.<br><br>The South Dublin County Development Plan 2022-2028 was subject to AA screening, and AA prior to its adoption and therefore, subject to any mitigation identified as being required, there will be no adverse effects on any European sites as a result of implementation of the plan**.**<br><br>The South Dublin County Council Development Plan 2022-2028 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area.<br><br>Considering the protective environmental policies contained within the South Dublin County Development Plan 2022-2028, and that alone the Proposed Scheme will not adversely |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | • Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | affect the integrity of any European sites, this land use plan will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| **Biodiversity Action Plan for South Dublin County (2020-2026)- Draft for public consultation**<br><br>The purpose of this action plan is to halt the loss of biodiversity and the degradation of ecosystems. | No, there are no potential impact pathways to European sites.<br><br>This draft plan (once adopted) will contribute towards maintaining or restoring the conservation condition of the European sites within their ZoI. Consequently, there are no potential impact pathways by which it could adversely affect the integrity of any European sites. | No in combination impact.<br><br>No potential for in combination impacts with the proposed scheme as such a plan is intended to improve the quality of the ecological environment within its ZoI. |
| **South Dublin County Council Climate Change Action Plan 2019-2024**<br><br>The purpose of this action plan is to improve the council's energy efficiency, reduce their greenhouse emissions and create a climate resilient Dublin. | No, there are no potential impact pathways to European sites.<br><br>This plan will contribute towards improving the climate change resilience. There are no potential impact pathways by which it could adversely affect the integrity of any European sites within the ZoI of the Proposed Scheme. | No in combination impact.<br><br>No potential for in combination impacts with the proposed scheme as such a plan is intended to improve the quality of the environment within its ZoI. |
| **Tallaght Town Centre Local Area Plan 2020**<br><br>This LAP makes reference to residential and mixed-use development targets / obligations, and targets associated with the improvement of infrastructure connecting pedestrians, cycling and public transport. | The Proposed Scheme lies partly within the functional area of the Dublin City Development Plan 2022-2028, South Dublin County Development Plan 2022-2028 and Dún-Laoghaire – Rathdown County Development Plan 2022-2028, however some of the objectives and policies of the Tallaght Town Centre Local Area Plan 2020, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.<br><br>As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites including:<br><br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye | No in combination impact.<br><br>The Tallaght Town Centre Local Area Plan 2020 was subject to AA screening, and A prior to its adoption and therefore, subject to any mitigation identified, there will be no adverse effects on any European sites as a result of implementation of the plan.<br><br>The Tallaght Town Centre Local Area Plan 2020 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area.<br><br>Considering the protective environmental policies contained within the Tallaght Town Centre Local Area Plan 2020, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this land use plan will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | |
| **Dún Laoghaire - Rathdown County Development Plan (2022-2028)**<br><br>The Dún Laoghaire - Rathdown CDP makes reference to commercial and residential development (including Cherrywood SDZ) targets / obligations, and targets associated with providing suitable community infrastructure. | The Proposed Scheme lies partly within the functional area of the Dublin City Development Plan 2022-2028, South Dublin County Development Plan 2022-2028 and Dún-Laoghaire – Rathdown County Development Plan 2022-2028, and many of the objectives and policies therein, have the potential to act in combination with | No in combination impact.<br><br>The Dún Laoghaire - Rathdown County Development Plan 2022-2028 was subject to AA screening, and AA prior to its adoption and therefore, subject to any mitigation identified, there will be no adverse effects on any European sites as a result of implementation of the plan**.** |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.<br><br>As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites including:<br><br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br><br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br><br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island | The Dún Laoghaire - Rathdown County Development Plan 2022-2028 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area.<br><br>Considering the protective environmental policies contained within the Dún Laoghaire- Rathdown County Development Plan 2022-2028, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this land use plan will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | |
| **Dún Laoghaire- Rathdown Biodiversity Action Plan 2021-2025**<br><br>The purpose of this action plan is to halt the loss of biodiversity and the degradation of ecosystems. | No, there are no potential impact pathways to European sites.<br><br>This plan will contribute towards maintaining or restoring the conservation condition of the European sites within their ZoI. Consequently, there are no potential impact pathways by which it could adversely affect the integrity of any European sites. | No in combination impact.<br><br>No potential for in combination impacts with the proposed scheme as such a plan is intended to improve the quality of the ecological environment within its ZoI. |
| **Dún Laoghaire-Rathdown County Council Climate Change Action Plan 2019-2024**<br><br>The purpose of this action plan is to improve the council's energy efficiency, reduce their greenhouse emissions and create a climate resilient Dublin. | No, there are no potential impact pathways to European sites.<br><br>This plan will contribute towards improving the climate change resilience. There are no potential impact pathways by which it could adversely affect the integrity of any European sites within the ZoI of the Proposed Scheme. | No in combination impact.<br><br>No potential for in combination impacts with the proposed scheme as such a plan is intended to improve the quality of the environment within its ZoI. |
| **Stillorgan Local Area Plan 2018-2024**<br><br>This LAP makes reference to the redevelopment of five key sites, commercial and residential development targets / obligations, and targets associated with the improvement of infrastructure connecting pedestrians, cycling and public transport. | The Proposed Scheme lies partly within the functional area of the Dublin City Development Plan 2022-2028, South Dublin County Development Plan 2022-2028 and Dún-Laoghaire – Rathdown County Development Plan 2022-2028, however some of the objectives and policies of the Stillorgan Local Area Plan 2018-2024, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.<br><br>As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving | No in combination impact.<br><br>The Stillorgan Local Area Plan 2018-2024 was subject to AA screening prior to its adoption. The AA screening confirmed that the plan did not have the potential to result in likely significant effects on European sites, therefore an NIS was not required. Therefore, there will be no adverse effects on any European sites as a result of implementation of the plan.<br><br>The Stillorgan Local Area Plan 2018-2024 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites including:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | Considering the protective environmental policies contained within the Stillorgan Local Area Plan 2018-2024, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this land use plan will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| **Woodbrook-Shanganagh Local Area Plan 2017-2024**<br><br>This LAP makes reference to residential development targets / obligations, and targets associated with the improvement of infrastructure connecting pedestrians, cycling and public transport. | The Proposed Scheme lies partly within the functional area of the Dublin City Development Plan 2022-2028, South Dublin County Development Plan 2022-2028 and Dún-Laoghaire – Rathdown County Development Plan 2022-2028, however some of the objectives and policies of the Woodbrook-Shanganagh Local Area Plan 2017-2024, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.<br><br>As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites including:<br><br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br><br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br><br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland | No in combination impact.<br><br>The Woodbrook-Shanganagh Local Area Plan 2017-2024 was subject to AA screening prior to its adoption. The AA screening confirmed that the plan did not have the potential to result in likely significant effects on European sites, therefore an NIS was not required. Therefore, there will be no adverse effects on any European sites as a result of implementation of the plan.<br><br>The Woodbrook-Shanganagh Local Area Plan 2017-2024 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area.<br><br>Considering the protective environmental policies contained within the Woodbrook-Shanganagh Local Area Plan 2017-2024, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this land use plan will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | |
| **Wicklow County Development Plan 2022-2028**<br><br>The Wicklow CDP makes reference to commercial and residential development targets / obligations, and targets associated with facilitating an extension of the LUAS and rail services, and facilitating the development of cycleways and walkways throughout the county. | The Proposed Scheme lies partly within the functional area of the Dublin City Development Plan 2022-2028, South Dublin County Development Plan 2022-2028 and Dún-Laoghaire – Rathdown County Development Plan 2022-2028, however some of the objectives and policies of the Wicklow County Development Plan 2022-2028, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.<br><br>As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites including:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA); | No in combination impact.<br><br>The Wicklow County Development Plan 2022-2028 was subject to AA screening, and AA prior to its adoption and therefore, subject to any mitigation identified, there will be no adverse effects on any European sites as a result of implementation of the plan**.**<br><br>The Wicklow County Development Plan 2022-2028 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area.<br><br>Considering the protective environmental policies contained within the Wicklow County Development Plan 2022-2028, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this land use plan will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | • Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | |
| **Wicklow Biodiversity Plan 2010-2015**<br><br>The purpose of this action plan is to halt the loss of biodiversity and the degradation of ecosystems. | No, there are no potential impact pathways to European sites.<br><br>This plan will contribute towards maintaining or restoring the conservation condition of the European sites within their ZoI. Consequently, there are no potential impact pathways by which it could adversely affect the integrity of any European sites. | No in combination impact.<br><br>No potential for in combination impacts with the proposed scheme as such a plan is intended to improve the quality of the ecological environment within its ZoI. |
| **Wicklow County Council Climate Change Adaptation Strategy 2019** | No, there are no potential impact pathways to European sites. | No in combination impact. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| The purpose of this action plan is to improve the council's energy efficiency, reduce their greenhouse emissions and create a climate resilient Wicklow. | This plan will contribute towards improving the climate change resilience. There are no potential impact pathways by which it could adversely affect the integrity of any European sites within the ZoI of the Proposed Scheme. | No potential for in combination impacts with the proposed scheme as such a plan is intended to improve the quality of the environment within its ZoI. |
| **Bray Municipal District Local Area Plan 2018-2024**<br><br>This LAP makes reference to commercial and residential development targets / obligations, including the two key development areas of Fassaroe and the former Bray Golf Club, and targets associated with improving roads and transport infrastructure, and providing pedestrian, cycling and public transport routes. | The Proposed Scheme lies partly within the functional area of the Dublin City Development Plan 2022-2028, South Dublin County Development Plan 2022-2028 and Dún-Laoghaire – Rathdown County Development Plan 2022-2028, however some of the objectives and policies of the Bray Municipal District Local Area Plan 2018-2024, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.<br><br>As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites including:<br><br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br><br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, | No In combination impact.<br><br>The Bray Municipal District Local Area Plan 2018-2024 was subject to AA screening, and AA, prior to its adoption and therefore, subject to any mitigation identified, there will be no adverse effects on any European sites as a result of implementation of the plan.<br><br>The Bray Municipal District Local Area Plan 2018-2024 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area.<br><br>Considering the protective environmental policies contained within the Bray Municipal District Local Area Plan 2018-2024, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this land use plan will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | |

***Table 37: In Combination Assessment of Major Projects***

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| MP01 | Widening of the M7 between Junction 9 (Naas North) and Junction 11 (M7 / M9) to provide an additional lane in each direction | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>As these works are completed and there is no physical overlap between the Proposed Scheme and this project, there is limited potential for in-combination effects to arise.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary | No in-combination effect.<br>The proposed M7 widening works were subject to consent, which was required to comply with requirements of the EIA and Habitats Directive as relevant. In granting consent it was necessary to determine that the project would not adversely affect any European sites, including arising from any impacts on water quality. Considering that alone, neither the Proposed Scheme nor the M7 widening works, will adversely affect the integrity of any European sites, the lack of any overlap either physically or in terms of the time of construction works, and the range of mitigation measures included in the Proposed Scheme to avoid significant impacts on water quality which is the only pathway with potential for in combination effects, the two projects will not generate any in combination effects which could adversely affect the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right nor in combination with other projects, including the proposed M7 widening works and has included mitigation in that regard to prevent any such adverse effects. |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | |
| MP02 | Enhancements of the N2 / M2 national route inclusive of a bypass of Slane, to provide for additional capacity on the non-motorway sections of this route, and to address safety issues in Slane village associated with, in particular, heavy goods vehicles | There is no physical overlap between the Proposed Scheme and this project and there are no potential impact pathways by which this project could adversely affect the integrity of any European sites within the ZoI of the Proposed Scheme. | No in-combination effect. |
| MP03 | N3 Castaheany Interchange Upgrade | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>There is no physical overlap between the Proposed Scheme and this project and the potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, | No in-combination effect.<br>The proposed N3 Castaheany Interchange Upgrade project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant development Plan. This land use plan contains objectives and policies to ensure the protection of European sites.<br>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required. In granting permission for the proposed project, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme. Considering the lack of physical overlap between the Proposed Scheme and the N3 Castaheany Interchange Upgrade project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed N3 Castaheany Interchange Upgrade and has included mitigation in that regard to prevent any such adverse effects. |
| MP04 | Reconfiguration of the N7 from its junction with the M50 to Naas, to rationalise junctions and accesses in order to provide a higher level of service for strategic traffic travelling on the mainline | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>There is no physical overlap between the Proposed Scheme and this project and the only potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, , Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, | No in-combination effect.<br>The proposed Reconfiguration of the N7 from its junction with the M50 to Naas project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant Development Plan. This land use plan contains objectives and policies to ensure the protection of European sites.<br>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the proposed project, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme. |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | Considering the lack of physical overlap between the Proposed Scheme and the proposed Reconfiguration of the N7 from its junction with the M50 to Naas, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Reconfiguration of the N7 from its junction with the M50 to Naas and has included mitigation in that regard to prevent any such adverse effects. |
| MP05 | N3–N4: Barnhill to Leixlip Interchange | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, , Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in | No in-combination effect.<br>The proposed N3-N4 Barnhill to Leixlip Interchange project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed reconfiguration works will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the reconfiguration works it will be necessary to determine that the project will not result in adverse effects on the |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and proposed N3-N4 Barnhill to Leixlip Interchange project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites. The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed N3-N4 Barnhill to Leixlip Interchange and has included mitigation in that regard to prevent any such adverse effects. |
| MP06 | Reconfiguration of the N4 from its junction with the M50 to Leixlip to rationalise accesses and to provide additional capacity at the Quarryvale junction | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA); | No in-combination effect.<br>The proposed the Reconfiguration of the N4 from its junction with the M50 to Leixlip must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed reconfiguration works will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required. |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | • Habitat degradation / effects on Q / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | In granting permission for the reconfiguration works it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Reconfiguration of the N4 from its junction with the M50 to Leixlip and has included mitigation in that regard to prevent any such adverse effects. |
| MP07 | Clonburris SDZ roads development | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>There is no physical overlap between the Proposed Scheme and this project and the only potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, | No in-combination effect.<br>The proposed Clonburris SDZ roads development project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant Development Plan. This land use plan contains objectives and policies to ensure the protection of European sites.<br>The proposed project will be subject to planning consent, including preparation of an EIAR and AA |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | Screening Report / Natura Impact Statement, if required.<br>In granting permission for the proposed project, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed Clonburris SDZ roads development, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Clonburris SDZ roads development and has included mitigation in that regard to prevent any such adverse effects. |
| MP08 | DART+ Programme West | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of: | No in-combination effect.<br>The proposed DART+ Programme West project must comply with all applicable planning and environmental approval requirements, and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | • Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | objectives and policies to ensure the protection of European sites.<br>The proposed DART+ Programme West will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the DART + Programme West it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the DART+ Programme West and has included mitigation in that regard to prevent any such adverse effects. |
| MP09 | Porterstown Distributor Link Road | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some | No in-combination effect.<br>The proposed Porterstown Distributor Link Road project must comply with all applicable planning and environmental approval requirements and be |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed link road will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the link road, it will be necessary to demonstrate that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed Porterstown Distributor Link Road, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the Porterstown Distributor Link Road and has included mitigation in that regard to prevent any such adverse effects. |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| MP10 | Widening of the N3 between Junction 1 (M50) and Junction 4 (Clonee), plus related junction and necessary changes to the existing national road network | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European | No in-combination effect.<br>The proposed N3 widening project between Junction 1 (M50) and Junction 4 (Clonee) must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed N3 widening will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the N3 widening it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed N3 widening project between Junction 1 (M50) and Junction 4 (Clonee), the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the widening of the N3 between Junction 1 (M50) and |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | Junction 4 (Clonee) and has included mitigation in that regard to prevent any such adverse effects. |
| MP11 | Lucan LUAS | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, | No in-combination effect.<br>The proposed Lucan LUAS project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed Lucan LUAS will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the Lucan LUAS, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed Lucan LUAS project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | Lucan LUAS project and has included mitigation in that regard to prevent any such adverse effects. |
| MP12 | DART+ Programme South West | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential | No in-combination effect.<br>The proposed DART+ South West project must comply with statutory licencing and planning requirements, and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed DART+ South West must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant development Plan. This land use plan contains objectives and policies to ensure the protection of European sites.<br>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the DART + South West it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed DART+ Programme South West project, the environmental protection policies included within the relevant |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the DART+ Programme South West and has included mitigation in that regard to prevent any such adverse effects. |
| MP13 | Junction upgrades and other capacity improvements on the M1 motorway, including additional lanes south of Drogheda, where required | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>Although there is no physical overlap between the two Schemes, the potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's | No in-combination effect.<br>The proposed M1 motorway upgrades project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites and surface water quality from any projects proposed within the plan area.<br>The proposed M1 motorway upgrades will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the M1 motorway upgrades it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme. |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | Considering the lack of physical overlap between the Proposed Scheme and the proposed M1 motorway upgrades project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Junction upgrades and other capacity improvements on the M1 motorway and has included mitigation in that regard to prevent any such adverse effects. |
| MP14 | Finglas LUAS (Green Line extension Broombridge to Finglas) | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>Although there is no physical overlap between the two Schemes, the potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation | No in-combination effect.<br>The proposed Finglas LUAS (Green Line extension Broombridge to Finglas) project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed Finglas LUAS extension will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the Finglas LUAS extension project it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed Finglas LUAS project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Finglas LUAS extension and has included mitigation in that regard to prevent any such adverse effects. |
| MP15 | DART+ Tunnel Element (Kildare Line to Northern Line) | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA); | No in-combination effect.<br>The proposed DART + Tunnel element (Kildare Line to Northern Line) project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed DART + Tunnel element will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required. |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | • Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | In granting permission for the DART + Tunnel element (Kildare Line to Northern Line) project it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and proposed DART + Tunnel element (Kildare Line to Northern Line) project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed DART+ Tunnel Element (Kildare Line to Northern Line) project and has included mitigation in that regard to prevent any such adverse effects. |
| MP16 | Potential Metro South alignment: SW option | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin | No in-combination effect.<br>The proposed Metro South alignment SW option must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites. |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | The proposed Metro South alignment will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the Metro South alignment it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the potential Metro South alignment: SW option , the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the Potential Metro South alignment: SW option and has included mitigation in that regard to prevent any such adverse effects. |
| MP17 | LUAS Cross City incorporating LUAS Green Line Capacity Enhancement - Phase 1 | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites. | No in-combination effect.<br>The proposed LUAS Cross City incorporating LUAS Green Line Capacity Enhancement - Phase 1 enhancements works were subject to consent, which was required to comply with requirements of the EIA and Habitats Directive as relevant. In granting consent it was necessary to determine that the project would not adversely affect any |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | As these works are completed and there is no physical overlap between the Proposed Scheme and this project, there is limited potential for in-combination effects to arise.<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA). | European sites, including arising from any impacts on water quality. Considering that alone, neither the Proposed Scheme nor the LUAS enhancements works, will adversely affect the integrity of any European sites, the lack of any overlap either physically or in terms of the time of construction works, and the range of mitigation measures included in the Proposed Scheme to avoid significant impacts on water quality which is the only pathway with potential for in combination effects, the two projects will not generate any in combination effects which could adversely affect the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the LUAS Cross City incorporating LUAS Green Line Capacity Enhancement - Phase 1 project and has included mitigation in that regard to prevent any such adverse effects |
| MP18 | Oldtown-Mooretown Western Distributor Link Road | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation | No in-combination effect.<br>The proposed Oldtown-Mooretown Western Distributor Link Road project must comply with all planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed link road will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the link road it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed Oldtown-Mooretown Western Distributor Link Road, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the Oldtown-Mooretown Western Distributor Link Road and has included mitigation in that regard to prevent any such adverse effects. |
| MP19 | Potential Metro South alignment: Charlemont to Sandyford | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA); | No in-combination effect.<br>The proposed Metro South alignment - Charlemont to Sandyford project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed Metro South alignment will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required. |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | • Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | In granting permission for the Metro South alignment it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed Metro South alignment - Charlemont to Sandyford project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Metro South alignment: Charlemont to Sandyford and has included mitigation in that regard to prevent any such adverse effects |
| MP20 | Poolbeg LUAS | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin | No in-combination effect.<br>The proposed Poolbeg LUAS project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed LUAS will be subject to planning consent, including preparation of an EIAR and AA |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | Screening Report / Natura Impact Statement, if required.<br>In granting permission for the LUAS it will be necessary to demonstrate that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the Poolbeg LUAS and has included mitigation in that regard to prevent any such adverse effects. |
| MP21 | Leopardstown Link Road Phase 2 | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of: | No in-combination effect.<br>The proposed link road project must comply with all planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | • Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed link road will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the link road it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed Leopardstown Link Road Phase 2 project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the Leopardstown Link Road Phase 2and has included mitigation in that regard to prevent any such adverse effects. |
| MP22 | Development of a road link connecting from the southern end of the Dublin Port Tunnel to the South Port area, which will serve the South Port and adjoining development areas | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some | No in-combination effect.<br>The proposed development of a road link connecting the southern end of the Dublin Port Tunnel to the South Port area, project must comply |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed link road will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the link road it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed development of a road link connecting from the southern end of the Dublin Port Tunnel to the South Port area, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the development of a road link connecting the southern end of the Dublin Port Tunnel to the South Port area and has included mitigation in that regard to prevent any such adverse effects. |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| MP23 | Poolbeg SDZ roads development | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European | No in-combination effect.<br>The proposed Poolbeg SDZ roads development project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed SDZ roads development will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the SDZ roads development it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed Poolbeg SDZ roads development project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Poolbeg SDZ roads development project |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | and has included mitigation in that regard to prevent any such adverse effects. |
| MP24 | Glenamuck District Distributor Road | There is no physical overlap between the Proposed Scheme and this project and there are no potential impact pathways by which this project could adversely affect the integrity of any European sites within the ZoI of the Proposed Scheme. | No in-combination effect. |
| MP25 | DART+ Programme Coastal North | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential | No in-combination effect.<br>The proposed DART+ Programme Coastal North project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed DART+ Programme Coastal North will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for DART+ Programme Coastal North it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites. |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the DART+ Programme Coastal North and has included mitigation in that regard to prevent any such adverse effects. |
| MP26 | Widening of the M50 to three lanes in each direction between Junction 14 (Sandyford) and Junction 17 (M11) plus related junction and other changes | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); | No in-combination effect.<br>The proposed Widening of the M50 to three lanes in each direction between Junction 14 (Sandyford) and Junction 17 (M11) project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed M50 widening will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the M50 widening it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed widening of the M50 to three lanes in each direction between Junction 14 (Sandyford) and Junction 17 (M11), the environmental protection policies included within |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | • Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the widening of the M50 to three lanes in each direction between Junction 14 (Sandyford) and Junction 17 (M11) and has included mitigation in that regard to prevent any such adverse effects. |
| MP27 | Cherrywood SDZ roads development | There is no physical overlap between the Proposed Scheme and this project and there are no potential impact pathways by which this project could adversely affect the integrity of any European sites within the ZoI of the Proposed Scheme. | No in-combination effect. |
| MP28 | DART+ Coastal South Project | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation | No in-combination effect.<br>The proposed DART+ Coastal South Project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed DART+ Coastal South Project will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for DART+ Coastal South Project it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the DART+ Coastal South Project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites. The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed DART+ Coastal South Project and has included mitigation in that regard to prevent any such adverse effects. |
| MP29 | R126 Donabate Relief Road: R132 to Portrane Demesne | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA); | No in-combination effect.<br>The proposed relief road project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed relief road will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the relief road it will be necessary to determine that the project will not |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | • Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the R126 Donabate Relief Road: R132 to Portrane Demesne project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the R126 Donabate Relief Road: R132 to Portrane Demesne and has included mitigation in that regard to prevent any such adverse effects. |
| MP30 | Extension of LUAS Green Line to Bray | There is no physical overlap between the Proposed Scheme and this project and there are no potential impact pathways by which this project could adversely affect the integrity of any European sites within the ZoI of the Proposed Scheme. | No in-combination effect. |
| MP31 | Capacity enhancement and reconfiguration of the M11 / N11 from Junction 4 (M50) to Junction 14 (Ashford) inclusive of ancillary and associated road schemes, to provide additional lanes and upgraded junctions, plus service roads and linkages to cater for local traffic movements | There is no physical overlap between the Proposed Scheme and this project and there are no potential impact pathways by which this project could adversely affect the integrity of any European sites within the ZoI of the Proposed Scheme. | No in-combination effect. |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| MP32 | MetroLink | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European | No in-combination effect.<br>The proposed Metrolink project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed MetroLink will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for MetroLink it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the MetroLink project and has included mitigation in that regard to prevent any such adverse effects. |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | |
| MP33 | Greater Dublin Drainage (GDD) | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The only potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, | No in-combination effect.<br>The proposed Greater Dublin Drainage project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant Development Plan. This land use plan contains objectives and policies to ensure the protection of European sites.<br>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the proposed project it will be necessary to demonstrate that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed Greater Dublin Drainage project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | proposed Greater Dublin Drainage Project and has included mitigation in that regard to prevent any such adverse effects. |
| MP34 | Cycling: Greater Dublin Area Cycle Network Plan (excluding Radial Core Bus Corridor elements) | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary | No in-combination effect.<br>Proposals arising out of the cycle network plan must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>Proposals arising out of the cycle network plan will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for proposals arising out of the cycle network plan it will be necessary to determine that they will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites. |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the Greater Dublin Area Cycle Network Plan elements and has included mitigation in that regard to prevent any such adverse effects. |
| MP35 | Dublin Array - offshore windfarm | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are | No in-combination effect.<br>The proposed Dublin Array - offshore windfarm project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed Dublin Array - offshore windfarm project will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the Dublin Array - offshore windfarm project it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed Dublin Array - offshore windfarm project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Dublin Array - offshore windfarm and has included mitigation in that regard to prevent any such adverse effects. |
| MP36 | Southern Port Access Route (SPAR): proposed 1.6km (SPAR) includes an opening bridge across the Liffey east of the existing Tom Clarke Bridge. It will be a private road which will take HGV traffic destined to / from the port off the local public road network. It will also allow access for other HGV traffic such as to the Covanta Waste-to-Energy plant. The SPAR will include an active travel corridor open to the public. | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); | No in-combination effect.<br>The proposed Southern Port Access Route (SPAR) project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed SPAR will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for SPAR it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed SPAR project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | • Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Southern Port Access Route (SPAR and has included mitigation in that regard to prevent any such adverse effects. |
| MP37 | Snugborough Interchange Upgrade | There is no physical overlap between the Proposed Scheme and this project and there are no potential impact pathways by which this project could adversely affect the integrity of any European sites within the ZoI of the Proposed Scheme either via habitat fragmentation or habitat degradation impacts (either hydrological, non-native invasive species, or disturbance / displacement to QI / SCI species). | No in-combination effect. |
| 303678 | Air insulated switchgear 110kV transmission substation. Platin, Duleek | There is no physical overlap between the Proposed Scheme and this project and there are no potential impact pathways by which this project could adversely affect the integrity of any European sites within the ZoI of the Proposed Scheme either via habitat fragmentation or habitat degradation impacts (either hydrological, non-native invasive species, or disturbance / displacement to QI / SCI species). | No in-combination effect. |
| 304799 | Construction of a new distributor road and junction to the southwest of Kells town centre. Kells | There is no physical overlap between the Proposed Scheme and this project and there are no potential impact pathways by which this project could adversely affect the integrity of any European sites within the ZoI of the Proposed Scheme either via habitat fragmentation or habitat degradation impacts (either hydrological, non-native invasive species, air quality or disturbance / displacement to SCI species). | No in-combination effect. |
| JA0040 | Dublin Mountain Visitors Centre and all associated works. Killakee and Jamestown | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some | No in-combination effect.<br>The proposed Dublin Mountain Visitors Centre project must comply with all applicable planning and environmental approval requirements and be |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the Dublin Mountain Visitors Centre, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed Dublin Mountain Visitors Centre project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Dublin Mountain Visitors Centre and has included mitigation in that regard to prevent any such adverse effects. |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| 304624 | FCC / 12 / 0001 Broadmeadow Way. Greenway between Malahide Demesne and Newbridge Demesne to be known as 'Broadmeadow Way'. Malahide | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European | No in-combination effect.<br>The proposed Broadmeadow Way Greenway must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed project has been subject to planning consent, including preparation of an EIAR and Natura Impact Statement.<br>In granting permission for the project, it was necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the consented Broadmeadow Way Greenway project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the consented Broadmeadow Way Greenway and has |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | included mitigation in that regard to prevent any such adverse effects. |
| 307073 | Alterations to a permitted double circuit 110kV electricity transmission line development between substations. Darndale / Belcamp | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, | No in-combination effect.<br>The proposed alterations to a permitted double circuit 110kV electricity transmission line development between substations must comply with all applicable planning and environmental approval requirement and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the proposed project it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed alterations to a permitted double circuit 110kV electricity transmission line development between substations project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites. |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed alterations to a permitted double circuit 110kV electricity transmission line development between substations and has included mitigation in that regard to prevent any such adverse effects. |
| 303249 | 110kV onsite electrical substation with associated electrical plant, electrical equipment, welfare facilities and wastewater holding tank and security fencing. 110kV overhead line grid connection cabling, upgrade of existing tracks and provision of new site access roads with all associated site development and ancillary works. Timahoe East | There is no physical overlap between the Proposed Scheme and this project and there are no potential impact pathways by which this project could adversely affect the integrity of any European sites within the ZoI of the Proposed Scheme either via habitat fragmentation or habitat degradation impacts (either hydrological, non-native invasive species, air quality or disturbance / displacement to SCI species). | No in-combination effect. |
| 304888 | 15-year permission for development at Oil Berth 3 and Oil Berth 4, Eastern Oil Jetty and at Berths 50A, 50N, 50S, 51, 51A, 49, 52, 53 and associated terminal yards to provide for various elements including new Ro-Ro jetty and consolidation of passenger terminal buildings. Dublin Port. | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, | No in-combination effect.<br>The proposed Dublin Port project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the proposed project, it will be necessary to demonstrate that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and this project at Dublin Port, the environmental protection policies included within the relevant land use plans, the |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI / SCI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed developments around Dublin Port and has included mitigation in that regard to prevent any such adverse effects. |
| 306583 | A residential development with ancillary commercial uses (retail unit, café and crèche) practically comprising a "Build to Rent" scheme on circa 9.69 hectares. The townlands of Shanganagh, Cork Little and Shankill, Co. Dublin. | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River | No in-combination effect.<br>The proposed project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the proposed project, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme. |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI / SCI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | Considering the lack of physical overlap between the Proposed Scheme and the proposed residential in named townlands around Shankill project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed residential development in named townlands around Shankill and has included mitigation in that regard to prevent any such adverse effects. |
| 307352 | The proposed development for Brexit Infrastructure will consist of - Installation of porta-cabin structures. Resurfacing and amalgamation of existing yards. Parking for heavy good vehicles, cars and bicycles. Gates, signage and all ancillary site works. Dublin Port. | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North | No in-combination effect.<br>The proposed project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the proposed project, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI / SCI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed development for Brexit Infrastructure at Dublin Port, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed development for Brexit Infrastructure at Dublin Port and has included mitigation in that regard to prevent any such adverse effects. |
| 306834 | Provision of a double circuit 220kV transmission line and a 220kV gas insulated switchgear (GIS) substation along with associated and ancillary works. Townlands of Cruiserath, Goddamendy and Bay, Co. Dublin. | There is no physical overlap between the Proposed Scheme and this project and there are no potential impact pathways by which this project could adversely affect the integrity of any European sites within the ZoI of the Proposed Scheme either via habitat fragmentation or habitat degradation impacts (either hydrological, non-native invasive species, air quality or disturbance / displacement to SCI species). | No in-combination effect. |
| 307296 | Construction of a 2 storey 110kV Gas Insulated Switchgear (GIS) substation, underground cable and all associated and ancillary site works. Former Clyde House, IDA Blanchardstown Business and Technology Park, Snugborough Road, Blanchardstown, Dublin 15 | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, | No in-combination effect.<br>The proposed project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites. |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI / SCI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the proposed project, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed 110kV Gas Insulated Switchgear (GIS) substation and underground cable project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed 110kV Gas Insulated Switchgear (GIS) substation and underground cable and has included mitigation in that regard to prevent any such adverse effects. |
| 306725 | Flood alleviation works along and adjacent to the River Poddle extending from the upper reaches of the river. Tymon North, Tallaght to Merchant's Quay, Dublin. | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites. | No in-combination effect.<br>The proposed River Poddle flood alleviation works must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI / SCI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the proposed project, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed River Poddle flood alleviation works, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed River Poddle flood alleviation works and has included mitigation in that regard to prevent any such adverse effects. |
| Not available | River Camac Flood Alleviation Scheme involving extension of a culvert and relocation of an existing upstream headwall. Pre-cast headwall sections and bunding utilised. | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some | No in-combination effect.<br>The proposed Camac Flood Relief Scheme works must comply with all applicable planning and |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | way, but themselves will not affect the conservation objectives of European sites.<br>There is no physical overlap between the Proposed Scheme and this project. The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI / SCI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the proposed project, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the Camac Flood Relief Scheme works, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Camac Flood Relief Scheme works and has included mitigation in that regard to prevent any such adverse effects. |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| ABP 307746 | Whitechurch Flood Alleviation Scheme involving various works between St Enda's Park and the confluence with the Owenadoher River | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI / SCI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European | No in-combination effect.<br>The consented Whitechurch Flood Alleviation Scheme works must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed project was subject to planning consent, including preparation of an EcIA and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the consented project, it was necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the Whitechurch Flood Alleviation Scheme works, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Whitechurch Flood Alleviation Scheme |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | works and has included mitigation in that regard to prevent any such adverse effects. |
| | Baldoyle Aviation Fuel Line | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI / SCI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, | No in-combination effect.<br>The proposed Aviation Fuel Pipeline project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The Aviation Fuel Pipeline was subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement,<br>In granting permission for the proposed project, it was necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the Aviation Fuel Line project and, considering the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | Aviation Fuel Pipeline and has included mitigation in that regard to prevent any such adverse effects. |
| 311315 | Park development project at the Racecourse Park (Baldoyle) | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI / SCI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary | No in-combination effect.<br>The proposed Park Development project at Racecourse Park must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the proposed project, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed Park Development project at Racecourse Park, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Park development project at Racecourse Park and has included mitigation in that regard to prevent any such adverse effects. |
| 309146, 309773 | 2 no. 110kV transmission lines and a 110kV Gas Insulated Switchgear (GIS) substation | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI / SCI species as a result of a temporary / permanent increase in noise levels and | No in-combination effect.<br>The proposed project to install 2 no. 110kV transmission lines and a 110kV Gas Insulated Switchgear (GIS) substation must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the proposed project, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed project to install 2 no. 110kV transmission lines and a 110kV Gas Insulated Switchgear (GIS) substation , the environmental protection policies included within the relevant land use plans, the range of mitigation |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the development of 2 no. 110kV transmission lines and a 110kV Gas Insulated Switchgear (GIS) substation and has included mitigation in that regard to prevent any such adverse effects. |
| 309812 | Increase the capacity of the Dublin Waste to Energy Facility from 600,000 tonnes per annum to 690,000 tonnes per annum | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, | No in-combination effect.<br>The proposed project to increase the capacity of the Dublin Waste to Energy Facility must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the proposed project, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposal to increase |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI / SCI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | the capacity of the Dublin Waste to Energy, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the increase in capacity of the Dublin Waste to Energy and has included mitigation in that regard to prevent any such adverse effects. |
| 308585 | Clutterland 110kV GIS substation building and 2 underground single circuit transmission lines | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River | No in-combination effect.<br>The proposed project to develop a Clutterland 110kV GIS substation building and 2 underground single circuit transmission lines must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the proposed project, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI / SCI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed Clutterland 110kV GIS substation building and 2 underground single circuit transmission lines, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Clutterland 110kV GIS substation building and 2 underground single circuit transmission lines and has included mitigation in that regard to prevent any such adverse effects. |
| 309951 | Provision of two 110kV transmission lines connecting Coolderrig 110kV GIS substation to Grange Castle – Kilmahud circuits | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA); | No in-combination effect.<br>The proposed provision of two 110kV transmission lines connecting Coolderrig 110kV GIS substation to Grange Castle – Kilmahud circuit must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required. |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | • Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI / SCI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | In granting permission for the proposed project, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed provision of two 110kV transmission lines connecting Coolderrig 110kV GIS substation to Grange Castle – Kilmahud circuit, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed provision of two 110kV transmission lines connecting Coolderrig 110kV GIS substation to Grange Castle – Kilmahud circuit and has included mitigation in that regard to prevent any such adverse effects. |
| 4936/22 | Office Block redevelopment | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of: | No in-combination effect.<br>The proposed office block redevelopment must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites. |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, | The proposed project was subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the proposed project, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed office block redevelopment, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed office block redevelopment and has included mitigation in that regard to prevent any such adverse effects. |
| 4816/22 | Office demolition and development of mixed development including 8 storey building at Charlemont Place South | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of: | No in-combination effect.<br>The proposed development project at Charlemount Place South must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | • Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, | land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed project was subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the proposed project, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed development project at Charlemount Place South, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed development project at Charlemount Place South and has included mitigation in that regard to prevent any such adverse effects. |
| 4880/22 | Mixed use development including Hotel centred on Middle Abbey Street | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some | No in-combination effect.<br>The proposed development project at Middle Abbey Street must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, | policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed project was subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the proposed project, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed development project at Middle Abbey Street, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed development project at Middle Abbey Street and has included mitigation in that regard to prevent any such adverse effects. |
| 4937/22 | Reconfiguration and extension of existing office blocks | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed | No in-combination effect.<br>The proposed Reconfiguration and extension of existing office blocks at Harcourt Street must |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, | comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed project was subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the proposed project, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed Reconfiguration and extension of existing office blocks at Harcourt Street, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Reconfiguration and extension of existing office blocks at Harcourt Street and has included |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | | mitigation in that regard to prevent any such adverse effects. |
| 5099/22 | Mixed use development at St.Stephens Green | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, | No in-combination effect.<br>The proposed Mixed use development at St.Stephens Green must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed project was subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the proposed project, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the Mixed use development at St.Stephens Green, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | | in combination with other projects, including the Mixed use development at St.Stephens Green and has included mitigation in that regard to prevent any such adverse effects. |
| 5431/22 | Restoration/refurbishment of existing buildings at Ormond Place | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, | No in-combination effect.<br>The proposed Restoration/refurbishment of existing buildings at Ormond Place must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed project was subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the proposed project, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed Restoration/refurbishment of existing buildings at Ormond Place, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites. |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | | The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Restoration/refurbishment of existing buildings at Ormond Place and has included mitigation in that regard to prevent any such adverse effects. |
| | Clongriffin to City Centre Core Bus Corridor Scheme | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI / SCI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary | No in-combination effect.<br>The proposed Clongriffin to City Centre Core Bus Corridor Scheme project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed Bus Corridor Scheme will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for Bus Corridor Scheme, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites. |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br><br>Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Clongriffin to City Centre Core Bus Corridor Scheme and has included mitigation in that regard to prevent any such adverse effects. |
| | Swords to City Centre Core Bus Corridor Scheme | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br><br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI / SCI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which | No in-combination effect.<br><br>The proposed Swords to City Centre Core Bus Corridor Scheme project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br><br>The proposed Bus Corridor Scheme will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br><br>In granting permission for Bus Corridor Scheme, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br><br>Considering the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Swords to City Centre Core Bus Corridor Scheme and has included mitigation in that regard to prevent any such adverse effects. |
| | Ballymun / Finglas to City Centre Core Bus Corridor Scheme | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); | No in-combination effect.<br>The proposed Ballymun / Finglas to City Centre Core Bus Corridor Scheme project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed Bus Corridor Scheme will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for Bus Corridor Scheme, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the Ballymun / Finglas to City Centre Core Bus Corridor Scheme , the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | • Disturbance and displacement impacts on QI / SCI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Ballymun / Finglas to City Centre Core Bus Corridor Scheme and has included mitigation in that regard to prevent any such adverse effects. |
| | Blanchardstown to City Centre Core Bus Corridor Scheme | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, | No in-combination effect.<br>The proposed Blanchardstown to City Centre Core Bus Corridor Scheme project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed Bus Corridor Scheme will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for Bus Corridor Scheme, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the Blanchardstown to City Centre Core Bus Corridor Scheme, the |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI / SCI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Blanchardstown to City Centre Core Bus Corridor Scheme and has included mitigation in that regard to prevent any such adverse effects. |
| | Liffey Valley to City Centre Core Bus Corridor Scheme | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River | No in-combination effect.<br>The proposed Liffey Valley to City Centre Core Bus Corridor Scheme project must comply with all applicable planning and environmental requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed Bus Corridor Scheme will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for Bus Corridor Scheme, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme. |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI / SCI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | Considering the lack of physical overlap between the Proposed Scheme and the Liffey Valley to City Centre Core Bus Corridor Scheme, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Liffey Valley to City Centre Core Bus Corridor Scheme and has included mitigation in that regard to prevent any such adverse effects. |
| | Lucan to City Centre Core Bus Corridor Scheme | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, | No in-combination effect.<br>The proposed Lucan to City Centre Core Bus Corridor Scheme project must comply with all applicable planning and environmental requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed Bus Corridor Scheme will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for Bus Corridor Scheme, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI / SCI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA) . | either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the Lucan to City Centre Core Bus Corridor Scheme, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Lucan to City Centre Core Bus Corridor Scheme and has included mitigation in that regard to prevent any such adverse effects. |
| | Tallaght / Clondalkin to City Centre Core Bus Corridor Scheme | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation | No in-combination effect.<br>The proposed Tallaght / Clondalkin to City Centre Core Bus Corridor Scheme project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed Bus Corridor Scheme will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for Bus Corridor Scheme, it will be necessary to determine that the project will not result in adverse effects on the integrity of any |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI / SCI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the Tallaght / Clondalkin to City Centre Core Bus Corridor Scheme, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the Tallaght / Clondalkin to City Centre Core Bus Corridor Scheme and has included mitigation in that regard to prevent any such adverse effects. |
| | Kimmage to City Centre Core Bus Corridor Scheme | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA); | No in-combination effect.<br>The proposed Kimmage to City Centre Core Bus Corridor Scheme project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed Bus Corridor Scheme will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required. |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | • Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI / SCI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | In granting permission for Bus Corridor Scheme, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the limited overlap at the north western end between the Proposed Scheme and the Kimmage to City Centre Core Bus Corridor Scheme, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the Kimmage to City Centre Core Bus Corridor Scheme and has included mitigation in that regard to prevent any such adverse effects. |
| | Bray to City Centre Core Bus Corridor Scheme | Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay | No in-combination effect.<br>The proposed Bray to City Centre Core Bus Corridor Scheme must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed Bus Corridor Scheme will be subject to planning consent, including preparation of an |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI / SCI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for Bus Corridor Scheme, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the Bray to City Centre Core Bus Corridor Scheme, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the Bray to City Centre Core Bus Corridor Scheme and has included mitigation in that regard to prevent any such adverse effects. |
| | Belfield / Blackrock to City Centre Core Bus Corridor | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, | No in-combination effect.<br>The proposed Belfield / Blackrock to City Centre Core Bus Corridor Scheme must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites. |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI / SCI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | The proposed Bus Corridor Scheme will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for Bus Corridor Scheme, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the Ringsend to City Centre Core Bus Corridor Scheme and has included mitigation in that regard to prevent any such adverse effects. |
| | Ringsend to City Centre Core Bus Corridor Scheme | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of: | No in-combination effect.<br>The proposed Ringsend to City Centre Core Bus Corridor Scheme must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | • Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI / SCI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed Bus Corridor Scheme will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for Bus Corridor Scheme, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the Ringsend to City Centre Core Bus Corridor Scheme and has included mitigation in that regard to prevent any such adverse effects. |
| | Strategic Housing Developments (SHDs)<br>(*Impact dependent on proximity to Proposed Scheme*) | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some | No in-combination effect.<br>Proposed SHD projects must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI / SCI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>Proposed SHD projects will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for proposed SHD projects it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed SHD Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed SHD schemes and has included mitigation in that regard to prevent any such adverse effects. |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | GDA Transport Strategy Park and Ride (All Included despite distance as hydrological connectivity cannot be ruled out to downstream European sites in Dublin Bay) | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI / SCI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European | No in-combination effect.<br>Proposed NTA Park and Ride projects must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>Proposed NTA Park and Ride projects will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for proposed Irish Water projects it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including NTA Park and Ride projects, and has included mitigation in that regard to prevent any such adverse effects. |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | |
| | Irish Water Projects (*Impact dependent on proximity to Proposed Scheme*) Larger scale Irish Water infrastructure projects are described separately under major projects | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat fragmentation (for example European sites at risk of *ex-situ* habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, Malahide Estuary SPA, Rogerstown Estuary SPA and The Murrough SPA);<br>• Habitat degradation / effects on QI / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Disturbance and displacement impacts on QI / SCI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, | No in-combination effect.<br>Proposed Irish Water projects must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>Proposed Irish Water projects will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for proposed Irish Water projects it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including Irish Water Projects |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | South Dublin Bay and River Tolka SPA and The Murrough SPA.); and,<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | and has included mitigation in that regard to prevent any such adverse effects. |
| SD228/0008 | Wellington Lane Walking and Cycling Scheme | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in-combination effects could be as a result of:<br>• Habitat degradation / effects on Q / SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example ex-situ inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA); | No in-combination effect.<br>The proposed Wellington Lane Walking and Cycling Scheme project must comply with all applicable planning and environmental approval requirements, and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed Wellington Lane Walking and Cycling Scheme will be subject to Part 8 planning consent, including AA Screening Report.<br>In granting permission for the proposed Wellington Lane Walking and Cycling Scheme it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites. |

| Application Reference | Brief Description | Potential for In-combination effect | Conclusion regarding In-combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | | The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Wellington Lane Walking and Cyclin Scheme and has included mitigation in that regard to prevent any such adverse effects. |

.

### 9.2 Plan Level Environmental Protection Policies and Objectives

427 This section lists the overarching plan level environmental protection policies from the following plans South Dublin County Development Plan 2022 – 2028, Dublin City Development Plan 2022-2028, Fingal Development Plan 2017 – 2023, Dun Laoghaire-Rathdown County Development Plan 2022-2028, and the Wicklow County Development Pan 2022-2028.

428 The Proposed Scheme is compliant with all of the plan level biodiversity protection policies and objectives described above, including those within the South Dublin County Development Plan 2022 – 2028, Dublin City Development Plan 2022-2028, Fingal Development Plan 2017 – 2023, Dun Laoghaire-Rathdown County Development Plan 2022-2028, and the Wicklow County Development Pan 2022-2028. Furthermore, the Proposed Scheme will not prevent the achievement of any of these plan level biodiversity protection policies and objectives across the identified potential impact pathways.

**South Dublin County Development Plan 2022 - 2028**

**GI2 Objective 1:** To reduce fragmentation and enhance South Dublin County's GI network by strengthening ecological links between urban areas, Natura 2000 sites, proposed Natural Heritage Areas, parks and open spaces and the wider regional network by connecting all new developments into the wider GI Network.

**NCBH3 Natura 2000 Sites:** Conserve and protect Natura 2000 sites and achieve and maintain favourable conservation status for habitats and species that are considered to be at risk through the protection of the Natura 2000 network from any plans or projects that are likely to have a significant effect on their coherence or integrity.

**NCBH3 Objective 1:** To prevent development and activities that would adversely affect the integrity of any Natura 2000 site located within or adjacent to the County and promote the favourable conservation status of the habitats and species integral to these sites.

**NCBH3 Objective 3:** To ensure that planning permission will only be granted for a development proposal that, either individually or in combination with existing and / or proposed plans or projects, will not have a significant adverse effect on a European Site, or where such a development proposal is likely or might have such a significant adverse effect (either alone or in combination), the planning authority will, as required by law, carry out an appropriate assessment as per requirements of Article 6(3) of the Habitats Directive 92 / 43 / EEC of the 21 May 1992 on the conservation of natural habitats and of wild fauna and flora, as transposed into Irish legislation. Only after having ascertained that the development proposal will not adversely affect the integrity of any European site, will the planning authority agree to the development and impose appropriate mitigation measures in the form of planning conditions. A development proposal which could adversely affect the integrity of a European site may only be permitted in exceptional circumstances, as provided for in Article 6(4) of the Habitats Directive as transposed into Irish legislation

**Dublin City Development Plan –2022-2028**

**Policy GI10:** To adequately protect flora and fauna (under the EU Habitats and Birds Directives, the Wildlife Acts 1976 (as amended), the Fisheries Acts 1959 (as amended) and the Flora (Protection) Order 2022 S.I No. 235 of 2022), wherever they occur within Dublin City, or have been identified as supporting the favourable conservation condition of any European sites.

**Policy GI13:** To ensure the protection, conservation and enhancement of all areas of ecological importance for protected species, and especially those listed in the EU Birds and Habitats Directives, including those identified as supporting the favourable conservation condition of any European sites, in accordance with development standards set out in this plan.

**Policy GI31:** To support the improvement of the ecological status of all rivers / waterbodies within the administrative area of Dublin City Council and those rivers identified in accordance with the River Basin Management Plan 2018 – 2021 and the next management plan to be produced under the 3rd river basin planning cycle (2022-2027), as required under the EU Water Framework Directive (see Chapter 9, Section 9.5.2 Urban Watercourses and Water Quality).

**Fingal Development Plan 2017 – 2023**

**Objective NH15:** Strictly protect areas designated or proposed to be designated as Natura 2000 sites (i.e. Special Areas of Conservation (SACs) and Special Protection Areas (SPAs); also known as European sites) including any areas that may be proposed for designation or designated during the period of this Plan.

**Objective NH16:** Protect the ecological integrity of proposed Natural Heritage Areas (pNHAs), Natural Heritage Areas (NHAs), Statutory Nature Reserves, Refuges for Fauna, and Habitat Directive Annex I sites.

**Objective NH17:** Ensure that development does not have a significant adverse impact on proposed Natural Heritage Areas (pNHAs), Natural Heritage Areas (NHAs), Statutory Nature Reserves, Refuges for Fauna, Habitat Directive Annex I sites and Annex II species contained therein, and on rare and threatened species including those protected by law and their habitats.

**Dun Laoghaire-Rathdown County Development Plan 2022-2028**

**Policy Objective GIB18:** Protection of Natural Heritage and the Environment*. It is a Policy Objective to protect and conserve the environment including, in particular, the natural heritage of the County and to conserve and manage Nationally and Internationally important and EU designated sites - such as Special Protection Areas (SPAs), Special Areas of Conservations (SACs), proposed Natural Heritage Areas (pNHAs) and Ramsar sites (wetlands) - as well as non-designated areas of high nature conservation value known as locally important areas which also serve as 'Stepping Stones' for the purposes of Article 10 of the Habitats Directive.

**Policy GIB19:** Habitats Directive* It is a Policy Objective to ensure the protection of natural heritage and biodiversity, including European Sites that form part of the Natura 2000 network, in accordance with relevant EU Environmental Directives and applicable National Legislation, Policies, Plans and Guidelines.

**Policy GIB21:** Designated Sites* It is a Policy Objective to protect and preserve areas designated as proposed Natural Heritage Areas, Special Areas of Conservation, and Special Protection Areas. It is Council policy to promote the maintenance and as appropriate, delivery of 'favourable' conservation status of habitats and species within these areas.

**Wicklow County Development Plan –2022-2028**

**CPO 17.4:** To contribute, as appropriate, towards the protection of designated ecological sites including Special Areas of Conservation (SACs) and Special Protection Areas (SPAs); Wildlife Sites (including proposed Natural Heritage Areas); Salmonid Waters; Flora Protection Order sites; Wildfowl Sanctuaries (see S.I. 192 of 1979); Freshwater Pearl Mussel catchments; and Tree Preservation Orders (TPOs).

To contribute towards compliance with relevant EU Environmental Directives and applicable National Legislation, Policies, Plans and Guidelines, including but not limited to the following and any updated/superseding documents:

- EU Directives, including the Habitats Directive (92/43/EEC, as amended), the Birds Directive (2009/147/EC), the Environmental Liability Directive (2004/35/EC), the Environmental Impact Assessment Directive (2011/92/EU, as amended), the Water Framework Directive (2000/60/EC), EU Groundwater Directive (2006/118/EC) and the Strategic Environmental Assessment Directive (2001/42/EC); EU 'Guidance on integrating ecosystems and their services into decision-making' (European Commission 2019);and,

- National legislation, including the Wildlife Acts 1976 and 2010 (as amended), European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018, the Wildlife (Amendment) Act 2000, the European Union (Water Policy) Regulations 2003 (as amended), the Planning and Development Act 2000 (as amended), the European Communities

(Birds and Natural Habitats) Regulations 2011 (SI No. 477 of 2011), the European Communities (Environmental Liability) Regulations 2008 (as amended) and the Flora Protection order 2015.

**CPO 17.5:** Projects giving rise to adverse effects on the integrity of European sites (cumulatively, directly or indirectly) arising from their size or scale, land take, proximity, resource requirements, emissions (disposal to land, water or air), transportation requirements, duration of construction, operation, decommissioning or from any other effects shall not be permitted on the basis of this plan[36].

**CPO 17.6:** Ensure that development proposals, contribute as appropriate towards the protection and where possible enhancement of the ecological coherence of the European Site network and encourage the retention and management of landscape features that are of major importance for wild fauna and flora as per Article 10 of the EU Habitats directive. All projects and plans arising from this Plan will be screened for the need to undertake Appropriate Assessment under Article 6 of the Habitats Directive.

**CPO 17.8:** Ensure ecological impact assessment is carried out for any proposed development likely to have a significant impact on proposed Natural Heritage Areas (pNHAs), Natural Heritage Areas (NHAs), Statutory Nature Reserves, Refuges for Fauna, Annex I habitats, or rare and threatened species including those species protected by law and their habitats. Ensure appropriate avoidance and mitigation measures are incorporated into development proposals as part of any ecological impact assessment.

**CPO 17.24:** To ensure and support the implementation of the EU Groundwater Directive and the EU Water Framework Directive and associated River Basin and Sub-Basin Management Plans and Blue Dot Catchment Programme, to ensure the protection, improvement and sustainable use of all waters in the County, including rivers, lakes, ground water, coastal and estuarine waters, and to restrict development likely to lead to a deterioration in water quality. The Council will also have cognisance of, where relevant, the EU's Common Implementation Strategy Guidance Document No. 20 and 36 which provide guidance on exemptions to the environmental objectives of the Water Framework Directive.

### 9.3 Conclusion of In Combination Assessment

429 The Proposed Scheme will not affect the integrity of any European sites including those within its ZoI. It will not result in the loss or fragmentation of any QI habitats, or habitats supporting populations of QI / SCI species, in (or associated with) any European sites, nor will it degrade any such habitats or affect QI / SCI species as a result of hydrological or hydrogeological impacts (quality or quantity), air quality impacts or introducing / spreading non-native invasive plant species.

430 The in-combination assessment has concluded that there is no potential for adverse effects on the integrity of any European sites including those within its ZoI, to arise as a consequence of the Proposed Scheme in-combination with any other plans or projects, as in consideration of the mitigation measures detailed in Section 7 of this report, no adverse effects on European site integrity will arise from the implementation of the Proposed Scheme.

431 The implementation of, and adherence to, the policies and objectives set out in Section 9.2 will ensure the protection of European sites across all identified potential impact pathways, and will include the requirement for any future project to undergo Screening for Appropriate Assessment and / or Appropriate Assessment, as appropriate.

432 As the Proposed Scheme will not affect the integrity of European sites within the ZoI of the Proposed Scheme, and given the protection afforded to European sites under the overarching land use plans, it has been concluded that there will be no adverse effects on the integrity of any European sites to arise as a consequence of the Proposed Scheme acting in combination with any other plans or projects.

[36] Except as provided for in Article 6(4) of the Habitats Directive, viz. there must be: a) no alternative solution available, b) imperative reasons of overriding public interest for the project to proceed; and c) adequate compensatory measures in place.

433 Table 36 and Table 37 present the results of a pairwise assessment of the Proposed Scheme in-combination with all of those projects and plans. This assessment found that there will be no adverse effects on the integrity of any European sites as a consequence of the Proposed Scheme acting in-combination with each of these plans and projects.

434 Furthermore, for the same reasons, there will be no adverse effects on the integrity of any European sites as a consequence of the Proposed Scheme acting in combination with any, some or indeed all taken together, of these plans or projects.

435 Therefore, the Proposed Scheme will not adversely affect the integrity of any European sites, either alone or in combination with any other plans or projects. No additional mitigation measures are necessary or required following this update assessment.

## 10 NIS Conclusion

436 This NIS has examined and analysed, in light of the best scientific knowledge, with respect to those European sites within the zone of influence of the Proposed Scheme, the potential impact sources and pathways, how these could impact on the sites' Qualifying Interests / Special Conservation Interest and whether the predicted impacts would adversely affect the integrity of North Dublin Bay SAC, South Dublin Bay SAC, Rockabill to Dalkey Islands SAC, Lambay Island SAC, Wicklow Mountains SAC, South Dublin Bay and River Tolka Estuary SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA, North Bull Island SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Howth Head Coast SPA, Malahide estuary SPA, Rogerstown Estuary SPA, Rockabill SPA and The Murrough SPA. The possibility of significant effects on any other European sites can be excluded.

437 Avoidance, design requirements and mitigation measures are set out within this NIS (and its appendices) and the effective implementation of these mitigation measures will ensure that any impacts on the conservation objectives of European sites will be avoided during the Construction and Operation of the Proposed Scheme such that there will be no risk of adverse effects on these European sites.

438 It has been objectively concluded by Scott Cawley Ltd., following an examination, analysis and evaluation of the relevant information, including in particular the nature of the predicted impacts from the Proposed Scheme and with the effective implementation of the mitigation measures proposed that the Proposed Scheme will not adversely affect (either directly or indirectly) the integrity of any European site, either alone or in combination with other plans or projects.

## 11 References

**Barron, S.J., Delaney, A., Perrin, P.M., Martin, J.R. & O'Neill, F.H. (2011).** *National survey and assessment of the conservation status of Irish sea cliffs*. Irish Wildlife Manuals No. 53. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin, Ireland.

**Benson (2009)** *Use of Inland Feeding Sites by Light-bellied Brent Geese in Dublin 2008-2009: A New Conservation Concern?* Irish Birds 8: 563-570.

**Berrow, S., O'Brien J., Groth, L., Foley A., and Voigt K. (2010)** *Bottlenose Dolphin SAC Survey 2010. Report to the National Parks and Wildlife Service. Shannon Dolphin and Wildlife Foundation. pp.24.*

**BSBI (2022)** *Botanical Society of Britain and Ireland Maps* [Online] Available from bsbi.org / maps

**CIEEM (2018)** *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine.* Chartered Institute of Ecology and Environmental Management, Winchester.

**CIRIA (2000)** *Environmental Handbook for Building and Civil Engineering Projects (C512).*

**CIRIA (2001)** *Control of Water Pollution from Construction Sites, Guidance for Consultants and Contractors (C532).*

**CIRIA (2006a)** *Control of water pollution from linear construction projects: Technical guidance (C648).*

**CIRIA (2006b)** *Control of water pollution from linear construction projects: Site guide (C649).*

**CIRIA (2007)** *The SUDS Manual (C697).*

**CIRIA (2015)** *Environmental good practice on site. Fourth edition. (C741).*

**Cutts, N., Phelps, A., Burdon, D. (2009)** *Construction and Waterfowl: Defining Sensitivity, Response, Impact and Guidance.* Report prepared by the Institute of Estuarine and Coastal Studies University of Hull and Humber INCA.

**DCC (2015)** *Dublin City Biodiversity Action Plan 2015-2020.*

**DCC (2022)** *Dublin City Biodiversity Action Plan 2021-2025.*

**Department of Environment, Heritage and Local Government (2010).** *Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities.*

**Doogue, D., Nash, D., Parnell, J., Reynolds, S. & Wyse Jackson, P. (eds) (1998)** *Flora of County Dublin.* The Dublin Naturalists' Field Club, Dublin.

**Dublin Drainage Consultancy (2005).** The Greater Dublin Strategic Drainage Study (GDSDS) Final Strategy Report.

**Enterprise Ireland (2003)** *Best Practice Guidelines BPGCS005 – Oil Storage Guidelines.*

**EPA (2018).** WFD Cycle 2 Catchment Liffey and Dublin Bay, Subcatchment Dodder_SC_010. Available at: https: / / www.catchments.ie / wp-content / files / subcatchmentassessments / 09_16%20Dodder_SC_010%20Subcatchment%20Assessment%20WFD%20Cycle%202.pdf

**EPA (2022)** *EPA Maps* [Online] Available from gis.epa.ie / EPAMaps /

**European Commission (2000)** *Communication from the Commission on the Precautionary Principle.*

**European Commission (2006)** *Nature and Biodiversity Cases – Ruling of the European Court of Justice.*

**European Commission (2013)** *Interpretation Manual of European Union Habitats. Version EUR 28. European Commission.*

**European Commission (2014)** *Article 6 of the Habitats Directive – Rulings of the European Court of Justice.* Final Draft September 2014.

**European Commission (2019)** *Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92 / 43 / EEC.*

**European Commission (2021).** *Assessment of Plans and Projects in Relation to Affecting Natura 2000 sites: Methodological Guidance on Article 6(3) and (4) of the Habitats Directive 92 / 43 / EEC.*

**FERS Ltd. (2018).** *Ecological survey of Clonburris Strategic Development Zone, Clondalkin, Co. Dublin.*

**Fossitt, J.A. (2000)** *A Guide to Habitats in Ireland*. Heritage Council, Kilkenny.

**Friends of the Camac***- Flora and Fauna https: / / fotc.ie / flora-and-fauna [Accessed 07 / 07 / 2022*

**GDSDS (2005).** *Greater Dublin Strategic Drainage Study*. *Final Strategy Report.*

**Gilbert, G., Gibbons, D. W. & Evans, J. (1998).** *Bird Monitoring Methods.* RSPB, Sandy.

**Hardey, J., Crick, H., Wernham, C., Riley, H., Etheridge, B. & Thompson, D. (2013)** *Raptors: A Field Guide for Surveys and Monitoring*. Scottish Natural Heritage.

**IFI (2016)** *Guidelines on Protection of Fisheries During Construction Works in and Adjacent to Waters;* Inland Fisheries Ireland.

**Lusby, J., Corkery, I., McGuiness, S., Fernández-Bellon, D., Toal, L., Norriss, D., Breen, D., O'Donaill, A., Clarke, D., Irwin, S., Quinn, J.L. and O'Halloran, J. (2017)** *Breeding ecology and habitat selection of Merlin Falco columbarius in forested landscapes*. Bird Study.

**Macklin, R., Brazier, B. & Sleeman, P. (2019)** *Dublin City Otter Survey.* Report prepared by Triturus Environmental Ltd. for Dublin City Council as an action of the Dublin City Biodiversity Action Plan 2015-2020.

**Matson, R., Delanty, K., Gordon, P., O'Briain, R., McCarthy, E., Cierpal, D., Connor, L., Corcoran, W., Coyne, J., McLoone, P., Morrisey-McCaffrey, E., Brett, T., Gavin, A & Kelly, F.L., (2019).** Sampling Fish in Rivers 2018 - Dodder, Factsheet No. 2. National Research Survey Programme. Inland Fisheries Ireland.

**McCorry, M. & Ryle, T. (2009).** *Saltmarsh Monitoring Project 2007-2008*. Final Report issued to the Research Branch, National Parks and Wildlife Service, Department of Environment, Heritage and Local Government.

**NBDC (2022)** *National Biodiversity Data Centre Database* [Online] Available from maps.biodiversityireland.ie / Map

**NPWS (2009)** *Site Synopsis for Grand Canal pNHA [002104].*

**NPWS (2010).** *Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Circular NPW 1 / 10 & PSSP 2 / 10.*

**NPWS (2011)** C*onservation Objectives: Saltee Islands SAC 000707 and Saltee Islands SPA 004002.* Version 1.0. National Parks and Wildlife Service, Department ofArts, Heritage and the Gaeltacht.

**NPWS (2012a)** *Conservation Objectives: Baldoyle Bay SAC 000199*. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2012b)** *Conservation Objectives: The Raven SPA 004019. Version 1.0.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2012c)** *Conservation Objectives: Wexford Harbour and Slobs SPA 004076. Version 1.0*. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2013a)** *Conservation Objectives: South Dublin Bay SAC 000210*. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2013b)** *Conservation Objectives: North Dublin Bay SAC 000206*. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2013c)** *Conservation Objectives: Rockabill to Dalkey Island SAC 003000*. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht

**NPWS (2013d)** *Conservation Objectives: Malahide Estuary SAC 000205*. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2013e)** *Conservation Objectives: Lambay Island SAC 000204*. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2013f)** *Conservation Objectives: Baldoyle Bay SPA 004016*. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2013g)** *Conservation Objectives: Malahide Estuary SPA 004025*. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2013h)** *Conservation Objectives: Rogerstown Estuary SPA 004015*. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2013i)** *Conservation objectives for Rockabill SPA [004114].* Version 1.0. Department of Arts, Heritage and the Gaeltacht.

**NPWS (2013j)** *Conservation Objectives: Boyne Estuary SPA 004080*. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2015a)** *Conservation Objectives: South Dublin Bay and River Tolka Estuary SPA 004024*. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2015b)** *Conservation Objectives: North Bull Island SPA 004006*. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2016)** *Conservation Objectives: Howth Head SAC 000202*. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

**NPWS (2017a)** *Conservation Objectives: Wicklow Mountains SAC 002122.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

**NPWS (2017b)** *Conservation objectives: Ireland's Eye SAC [002193].* Version 1.0. Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

**NPWS (2019a)** *Conservation objectives: Ballyman Glen SAC [000713].* Version 1.0. Department of Housing, Local Government and Heritage.

**NPWS (2019b).** *The Status of EU Protected Habitats and Species in Ireland. Volume 1: Summary Overview.*

**NPWS (2019c).** *The Status of EU Protected Habitats and Species in Ireland. Volume 2: Habitat Assessments.*

**NPWS (2019d).** *The Status of EU Protected Habitats and Species in Ireland. Volume 3: Species Assessments.*

**NPWS (2019e)** *Natura 2000 – Standard Data Form. Rockabill to Dalkey Island SAC.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2019f)** *Natura 2000 – Standard Data Form. Lambay Island SAC [000204]. Updated 09-2019.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2020a)** *Natura 2000 – Standard Data Form. North Dublin Bay SAC.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2020b)** *Natura 2000 – Standard Data Form. South Dublin Bay SAC.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2020c)** *Natura 2000 – Standard Data Form. South Dublin Bay and River Tolka Estuary SPA.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2020d)** *Natura 2000 – Standard Data Form. North Bull Island SPA.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2020e)** *Natura 2000 – Standard Data Form. Howth Head Coast SPA.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2020f)** *Natura 2000 – Standard Data Form. Dalkey Islands SPA.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2020g)** *Natura 2000 – Standard Data Form. Rockabill SPA.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2020h)** *Natura 2000 – Standard Data Form. Baldoyle Bay SPA.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2020i)** *Natura 2000 – Standard Data Form. Malahide Estuary SPA.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2020j)** *Natura 2000 – Standard Data Form. Rogerstown Estuary SPA.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2020k)** *Natura 2000 – Standard Data Form. Skerries Islands SPA.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2020l)** *Natura 2000 – Standard Data Form. Ireland's Eye SPA.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2020m)** *Natura 2000 – Standard Data Form. Lambay Island SPA.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2020n)** *Natura 2000 – Standard Data Form. The Murrough SPA.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2020o)** *Natura 2000 – Standard Data Form. Wicklow Mountains SAC.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2021a)** *Conservation Objectives: Rye Water Valley/Carton SAC 001398*. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage[37]

**NPWS (2021b)** *Conservation Objectives: Knocksink Wood SAC 000725*. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.

**NPWS (2021c)** *Conservation Objectives: Glenasmole Valley SAC 001209.* Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.

[37] The versions of the conservation objectives documents referenced in this table are the most recent published versions at the time of writing

**NPWS (2022a)** *Conservation objectives for Dalkey Islands SPA [004172].* First Order Site-specific Conservation Objectives. Version 1. Department of Housing, Local Government and Heritage.

**NPWS (2022b)** *Conservation objectives for Wicklow Mountains SPA [004040].* First Order Site-specific Conservation Objectives. Version 1. Department of Housing, Local Government and Heritage

**NPWS (2022c)** *Conservation objectives for Howth Head Coast SPA [004113].* First Order Site-specific Conservation Objectives. Version 1. Department of Housing, Local Government and Heritage.

**NPWS (2022d)** *Conservation objectives for Ireland's Eye SPA [004117].* First Order Site-specific Conservation Objectives. Version 1. Department of Housing, Local Government and Heritage.

**NPWS (2022e)** *Conservation objectives for Lambay Island SPA [004069].* First Order Site-specific Conservation Objectives. Version 1. Department of Housing, Local Government and Heritage.

**NPWS (2022f)** *Conservation objectives for The Murrough SPA [004186].* First Order Site-specific Conservation Objectives. Version 1. Department of Housing, Local Government and Heritage.

**NPWS (2022g)** *Conservation objectives for Skerries Islands SPA [004122].* First Order Site-specific Conservation Objectives. Version 1. Department of Housing, Local Government and Heritage

**NRA (2005)** *Guidelines for the Treatment of Badgers prior to the Construction of National Road Schemes*.

**NRA (2006)** *Guidelines for the Treatment of Otters prior to the Construction of National Road Schemes.*

**Office of the Planning Regulator (2021).** *OPR Practice Note PN01. Appropriate Assessment Screening for Development Management*.

**Ó Néill, L., Veldhuizen, T., de Jongh, A. and Rochford, J. (2009).** *Ranging behaviour and socio-biology of Eurasian otters (Lutra lutra) on lowland mesotrophic river systems.* European Journal of Wildlife Research: 55: 363-370.

**RSPB.** Kingfisher breeding, feeding and territory webpage. Available from: https: / / www.rspb.org.uk / birds-and-wildlife / wildlife-guides / bird-a-z / kingfisher / breeding-feeding-territory /

**Ruddock, M. & Whitfield, D.P. (2007).** *A Review of Disturbance Distances in Selected Bird Species.* A report from Natural Research Projects) Ltd. to Scottish Natural Heritage.

**Scott Cawley Ltd. (2017).** *Natura Impact Statement – Information for Stage 2 Appropriate Assessment for the Proposed Residential Development St. Paul's College, Sybill Hill, Raheny, Dublin 5.*

**Scottish Natural Heritage (SNH) (2016)** *Assessing Connectivity with Special Protection Areas (SPAs).* June 2016 Version 3.

**Smith, G.F., O'Donoghue, P., O'Hora, K. & Delaney, E. (2011)** *Best Practice Guidance for Habitat Survey and Mapping*. The Heritage Council Church Lane, Kilkenny, Ireland.

**Stace, C. (2019)** *New Flora of the British Isles. 4th Edition.* C&M Floristics

**Svensson, L., Mullarney, K. & Zetterstrom, D. (2009)** *Collins Bird Guide* 2nd Edition Harper Collins Publishers Ltd., London

**Transport Infrastructure Ireland (2007)** *Guidelines for the Creation, Implementation and Maintenance of an Environmental Operating Plan.*

**Transport Infrastructure Ireland (2020a)**. *The Management of Invasive Alien Plant Species on National Roads - Technical Guidance. Transport Infrastructure Ireland Publications*

**Transport Infrastructure Ireland (2020b)** *The Management of Invasive Alien Plant Species on National Roads – Standard. Transport Infrastructure Ireland Publications*

**Triturus Environmental Ltd. (2020)** *Aquatic baseline report for the BusConnects Dublin – Core Bus Corridor Infrastructure Works. Prepared by Triturus Environmental Ltd. for Scott Cawley. December 2020.*

**UK Environment Agency (2004)** *Pollution Prevention Guidelines (PPG).*

**Wright, M., Goodman, P., Cameron, T. (2010)** *Exploring Behavioural Responses of Shorebirds to Impulse Noise.* Wildfowl (2010) 60: 150-167.

**Directives and Legislation**

Council Directive 92 / 43 / EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (The Habitats Directive).

Council Directive 2009 / 147 / EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (The Birds Directive).

Planning and Development Acts 2000 (as amended).

Roads Act 1993

S.I. No. 355 of 2015 – European Communities (Birds and Natural Habitats) (Amendment) Regulations 2015.

S.I. No. 235 of 2022 - Flora (Protection) Order 2022.

NTA

Údarás Náisiúnta Iompair
National Transport Authority

National Transport Authority
Dún Scéine
Harcourt Lane
Dublin 2
D02 WT20

Project Ireland 2040
*Building Ireland's Future*